https://doi.org/10.59893/bjc.23(1).001
Baltic J. Coleopterol. 23(1) 2023
ISSN 1407 – 8619

New and poorly-known taxa of Lagriinae Latreille, 1825 (Coleoptera: Tenebrionidae) predominantly from the collections of the Naturkundemuseum Erfurt. 1

Dmitry Telnov

Telnov D. 2023. New and poorly-known taxa of Lagriinae Latreille, 1825 (Coleoptera: Tenebrionidae) predominantly from the collections of the Naturkundemuseum Erfurt. 1. *Baltic J. Coleopterol., 23 (1): 1 - 33.*

In the present paper, the following nine new species from the subfamily Lagriinae are described and illustrated: *Acutogria weigeli*, *Bothrichara dani*, *B. doberai*, *B. skalei*, *Oreogria astrapia*, *Xenocerogria koteka* spp. nov. (all from New Guinea), *Arthromacra anoulak* sp. nov. (Laos), *Bothynogria annamita* sp. nov. (Vietnam) and *Cerogria* s. l. *critica* sp. nov. (Sulawesi). *Cerogria* (*Drepanomela*) *cribratula* (Schaufuss, 1887) (Sulawesi) is redescribed, and a lectotype designation is made for this species. New records presented for three poorly known Papuan and one Indian Subcontinent species. A brief discussion on generic features of some of the new taxa is presented.

Keywords: taxonomy, long-jointed beetles, Oriental and Papuan regions

Dmitry Telnov. Department of Life Sciences, Natural History Museum, SW7 5BD, London, United Kingdom; e-mail: anthicus@gmail.com (ORCID: 0000-0003-3412-0089);
Coleopterological Research Center, Institute of Life Sciences and Technology, Daugavpils University, Vienības iela 13, LV-5401, Daugavpils, Latvia;
Institute of Biology, University of Latvia, O. Vācieša iela 4, LV-1004, Rīga, Latvia.

ZooBank URN for this publication: urn:lsid:zoobank.org:pub:D79A52FE-CED7-4B97-BFE6-54DB4DE4CB44

INTRODUCTION

The long-jointed beetle subfamily Lagriinae Latreille, 1825 is nearly cosmopolitan in distribution (Matthews & Lawrence 2019) with about 1300 extant (Telnov 2022c) and only a handful of fossil species (Telnov *et al*. 2019). In spite of some progress driven mainly by Merkl (for instance, Merkl 1986, 1987, 1988a & b, 1990, 1999, 2004, 2007, 2011, 2019 and other) and Masumoto (for instance, Masumoto 1988; Akita & Masumoto 2016 and other)now followed by Telnov (for instance, Telnov 2021, 2022a, b, c & d, 2023), the Lagriinae remains an understudied and under recorded subgroup.The present composition of genera is suboptimal since morphological features of dubious evolutionary value were widely used by earlier authors (for instance, Borchmann 1916, 1936; Merkl 1988b, c) to define a significant proportion of lagriine genera (Telnov 2022c and the 'Discussion' herein).

The aim of the present paper is to present the following ninedescriptions of new Oriental, Wallacean and Papuan species of Lagriina Latreille, 1825 and Statirina Blanchard, 1845 based mainly on the material from the Naturkundemuseum Erfurt, namely *Acutogria weigeli* sp. nov. (New Guinea), *Arthromacra anoulak* sp. nov. (central Laos), *Bothrichara dani*, *B. doberai*, *B. skalei*, *Oreogria astrapia* spp. nov. (all from Doberai Peninsula of New Guinea), *Bothynogria annamita* sp. nov. (central Vietnam), *Cerogria* s. l. *critica* sp. nov, (Sulawesi) and *Xenocerogria koteka* sp. nov. (New Guinea), a redescription of and a lectotype designation for *C.* (*Drepanomela*) *cribratula* spp. nov. (southern Sulawesi), and to contribute to an ongoing discussion on the present system of Lagriinae genera introduced by Borchmann (e.g., 1936) and further developed by Merkl (e.g., 1988b & c). Additionally, new records presented for three poorly known Papuan Lagriina and one Indian Subcontinent Statirina species.

MATERIAL AND METHODS

All genera and species are listed in alphabetical order. Paired morphological structures are generally treated as singular in text.

For morphological studies, a Leica S6D binocular stereomicroscope (Leica Microsystems, Wetzlar, Germany) was used. Habitus images were produced with a Canon EOS 5D SLR camera and a CanonMP-E 65 mm lens (Canon Co., Tokyo, Japan). Genitalia were relaxed in KOH solution, mounted on same cards near corresponding specimen's slides and fixed in dimethyl hydantoin formaldehyde (DMHF). Helicon Focus 7 software (Helicon Soft, Kharkiv, Ukraine) was used for image stacking. Further image manipulations were done using GNU Image Manipulation Program (GIMP).

Label text is adapted by the author for some specimens and is not necessarily reproduced *verbatim*. All type specimens of the new species are provided with a black framed label on red paper with "HOLOTYPUS" or "PARATYPUS", respectively. Labels, if more than one on the same specimen, are separated by a double slash. Author's comments are placed in square brackets.

Acronyms of material repositories:

ASC – Collection André Skale, Gera, Germany;
NMNH – Natural History Museum (former British Museum, Natural History), London, United Kingdom;
DTC – Collection Dmitry Telnov, Rīga, Latvia;
MFNB – Museum für Naturkunde - Leibniz Institute for Evolution and Biodiversity Science, Berlin, Germany;
MKC – Collection Mārtiņš Kalniņš, Sigulda, Latvia;
NME – Naturkundemuseum Erfurt, Germany.

RESULTS

New descriptions and a redescription

***Acutogria weigeli* sp. nov.** (Figs 1–2)

urn:lsid:zoobank.org:act:F30C9AF8-2A2A-40D3-AF59-8E0501F815EE

Type material designated. Holotype male NME: INDONESIA Irian Jaya Wamena S, Kurima 1700m 04°12'64"S 139°01'32"E 26.I.1999leg. A.Weigel cult.area [printed]. Paratypes 8 specimens. 1 male DTC and 1 female NME: same label as holotype; 3 males & 2 females NME, 1 female DTC: INDONESIA Irian Jaya Wamena, Ibele Flußtal 04°02'17"S, 138°50'32"E 25.I.1999

leg. A.Weigel 1600m cultivate [sic!] area [printed].

Derivatio nominis. Named for Andreas Weigel (Wernburg, Germany), the first collector of this species.

Measurements. Holotype male, total body length 7.7 mm; head length (excluding cranial 'neck') 1.2 mm, maximum head width across compound eyes 1.3 mm, pronotal length 1.2 mm, maximum pronotal width across before midlength 1.4 mm, elytral length 5.5 mm, combined maximum elytral width across postmedium 3 mm. Paratypes males 7.3–8.1 mm, paratypes females – 9.2–9.5 mm long.

Description. Holotype male (Fig. 1A). Head black to dark brown dorsally and ventrally, with weak greenish lustre. Pronotum dark brown with weak bronze lustre. Elytra black with dark blue metallic lustre. Ventral pterothorax black to dark brown, abdomen paler brown. Mouthparts except for dark maxillary palps and two to four basal antennomeres yellowish brown. Legs brown to dark brown. Head subquadrate, slightly transverse, slightly glossy dorsally and ventrally. Labrum emarginate medially at anterior margin. Epistoma strongly U-shapely emarginate at anterior margin. Frontoepistomal impression moderately deep, distinct, slightly arched. Anterolateral area of frons slightly projected laterally to hold insertion of antenna. Compound eye large, strongly kidney-shaped, strongly emarginate at anterior margin (emargination extending towards posterior third of eye length, with several long, suberect setae), broadly roundedto subtruncate at posterior margin in lateral view, touching insertion of antenna, moderately prominent in lateral and dorsal aspects. Interfacetal setae not observed. Minimum interocular distance about 0.6× a length of dorsal eye portion. Tempus nearly half a length of dorsal eye portion, barely constricted posteriad, posterior temporal angle rounded, head base truncate. Head dorsum densely and coarsely punctate with rather deep subcircular to strongly elongate punctures. Intervening spaces much narrower than punctures, slightly elevated and glossy. Head dorsal setation yellowish, long, suberect to erect, sparse, not concealing dorsal surface of head. Antenna moderately long, filiform, extending beyond mesocoxa when directed posteriad. Basal antennomere thickened, about twice as long as antennomere two. Antennomere two shortened. Antennomere three about 2.2× as long as antennomere two, 1.5× as long as antennomere four. Antennomeres 5–9 thickened, submoniliform, antennomeres 8–10 widened distally. Penultimate antennomere slightly longer than wide. Terminal antennomere strongly elongate, asymmetrical, nearly straight in basal half, curved in apical half; at about apical forth strongly narrowing into a narrow, elongate, pointedapical process, about 1 mm long, about 5× as long as penultimate antennomere and about as long as combined length of four preceding antennomeres. Terminal maxillary palpomere strongly securiform. Cranial 'neck' not exposed from beneath anterior margin of pronotum, glossy, nearly impunctate. Pronotum subtrapezoid, slightly transverse, slightly glossy and flattened dorsally, subtruncate at anterior, slightly emarginate at posterior margin. Maximum width across just before midlength, lateral margins slightly expanding medially, slightly constricted anteriad. Anterior and posterior margin not beaded or rimed. Antero- and posterolateral angles rounded in dorsal view. Dorsal pronotal punctures rather large, coarse, deep and dense. Intervening spaces glossy and not elevated, generally narrower than punctures on median part of pronotal disc. Dorsal pronotal setae as those on head. Scutellar shield small, elongated, apically rounded, densely punctured and appressedly setose. Elytron widened postmedium, dorsally flattened to slightly convex, glossy. Apical sutural angle

narrowly rounded. Elytral sculpture of, moderately deep and large punctures which becoming sparser along lateral margins. Intervening spaces glossy, generally narrower than punctures on median part of elytral disc, about as wide as those on lateral parts of elytron, not or rarely subconfluent, generally not elevated with some exceptions, not plicate. Elytral setae whitish, long, moderately dense, suberect. Epipleuron complete, broad at most of its length except at elytral apex, densely punctured. Metathoracic wings fully developed (functional). Ventral pterothorax and abdominal sternites densely white setose by short setae, in part effectively concealing their ventral sculpture. Legs long, slender, slightly glossy, with whitish, moderately longsuberect setae. Femora long and slender, profemur distinctly clavate. Tibiae subequally long to corresponding femora. Protibia (Fig. 1B) curved and medially twisted, inner margin with a large broad median tooth-like widening and several very long whitish setae, distal margin of protibia widened and truncate, short and densely setose. Mesotibia distinctly serrate at inner margin (Fig. 1C). Metatibia strongly denticulate at inner margin (Fig. 1C). Protarsomeres somewhat widened likely pointing on arboreal lifestyle. Male basal metatarsomere nearly as long as combined length of remaining metatarsomeres. Male tergite VII broadly rounded at posterior margin, morphological sternite VII obtusely angulate medially at posterior margin. Aedeagus as in Fig. 2.

Sexual dimorphism. Female (Fig. 1D) larger, pronotal disc dorsally with two pairs of variably deep elliptical impressions not observed in males; posterior pair comparatively shallower. Minimum interocular distance about as wide as dorsal eye length. Terminal antennomere less elongate than that of male, slightly asymmetrical, pointed apically, about as long as combined length of 2.5 preceding antennomeres. Median part of pronotal disc in some female paratypes with a flattened, irregularly elliptical, densely punctate area split by a low longitudinal carina. Profemur not clavate. Protibia without modifications and long setae, meso- and metatibia gently serrate at inner margin in two female paratypes, without modifications in two other female paratypes.

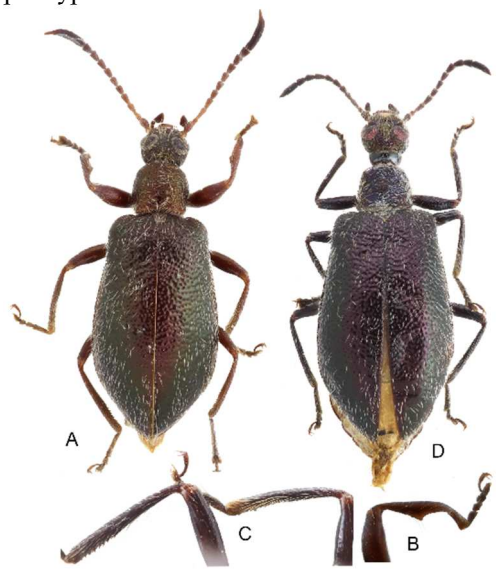

Fig. 1. *Acutogria weigeli* sp. nov., habitus, dorsal view. A – Holotype male; B – ditto, left foreleg; C – ditto, meso- and metatibia, dorsal view; D – Paratype female [not to scale].

Interspecific variability. Teneral specimens with elytra pale brown with narrowly darkened suture, dorsal forebody and legs comparatively darker brown.

Differential diagnosis. The only known congener, *A. falcata* Merkl, 1988 (Papua New Guinea), appears very close to the new species, but differs in the presence of the darker postmedian common spot on the elytra (the elytra entirely black with dark blue metallic lustre in older specimens, pale brown with narrowly darkened suture in teneral specimens), the male terminal antennomere being as long as combined

length of five preceding antennomeres (about as long as combined length of four preceding antennomeres in *A. weigeli* sp. nov.), the pronotum being slightly longer than broad in males (the pronotum is slightly transverse in both sexes in *A. weigeli* sp. nov.), the presence of the four shallow pronotal impressions in both sexes (only observed in females of *A. weigeli* sp. nov.), the irregularly punctate elytra with the elevated, subplicate intervening spaces (the elytra comparatively less densely and coarsely punctate, the intervening spaces not or hardly elevated and not subplicate in *A. weigeli* sp. nov.), the metatibia with the "fine denticulation" (the metatibia with rather strong, acute denticles in *A. weigeli* sp. nov.), and the slightly different structure of the aedeagus.

Fig. 2. *Acutogria weigeli* sp. nov., paratype male, aedeagus in dorsal (A), ventral (B) and lateral (C) view.

Ecology. Diurnal, occurs at about1600–1700m in degraded habitats.

Distribution. Baliem Valley, Central Cordillera of New Guinea.

***Arthromacra anoulak* sp. nov.** (Figs 3–4)

urn:lsid:zoobank.org:act:A54841AE-3724-4BF5-9E71-13A6A1C7F0E8

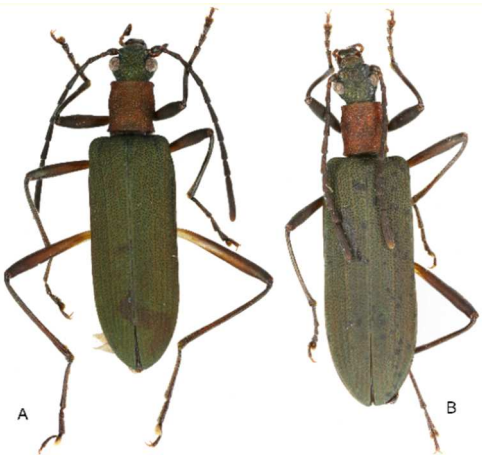

Fig. 3. *Arthromacra anoulak* sp. nov., habitus, dorsal view. A – Holotype male; B – Paratype female [not to scale].

Fig. 4. *Arthromacra anoulak* sp. nov., holotype male, aedeagus in dorsal (A), ventral (B) and lateral (C) view.

Type material designated. Holotype male NME: LAOS, NE, P: Hua Phan Ban Saleui, Phou Pan (Mt.), 1300-1900m, 03-30.IV.2014, 20°12'N 104°01'E, lg. Holzschuh [printed] // collection NATURKUNDEMUSEUM ERFURT [printed, label yellow].

Paratypes 7 specimens. 1 male, 2 female & 1 not sexed specimen NME, 1 male & 1 female DTC: same labels as holotype; 1not sexed specimen NME: NE – LAOS, Hua Phan prov. Ban Saleui, Phou Pan (Mt.), 1300-1900m, 11.IV.-15.V.2012, 20°12' N, 104°01' E, leg. C. Holzschuh [printed] // collection NATURKUNDEMUSEUM ERFURT [printed, label yellow].

Derivatio nominis. Named from Lao 'anoulak' (conservation) to point on the importance of the Annamite Range biodiversity hotspot for conservation of biological diversity in south-eastern Asia. Noun in apposition.

Measurements. Holotype male (Fig. 3A). Total body length 8 mm; head length 1.2 mm, head width across compound eyes 1.2 mm, pronotal length 1.2 mm, pronotal width across anterior margin 1.05 mm, across median portion 1.15 mm, across base 1.15 mm, elytral length 5.6 mm, combined maximum elytral width across midlength 2.1 mm. Paratypes males 7.8–8 mm, paratypes females 8.5–9.2 mm long.

Description. Holotype male, body elongate, slender, flattened in dorsal aspect. Dorsal and ventral head and elytra uniformly dull khaki green. Dorsal and ventral pronotum dull red. Anterior leg black or yellowish-brown at insertion, trochanter yellowish to reddish brown. Middle and posterior legs black-brown with basal part of femora and trochanters yellowish. Antenna generally black, antennomere two brownish. Abdomen, meso- and metasternum dull khaki green. Maxillary palpus brown with darker terminal palpomere. Head opaque dorsally and ventrally except for a slightly glossy labrum, somewhat flattened in dorsal aspect. Labrum shallowly emarginate at anterior margin. Frontoepistomal impression rather deep, distinct. Anterolateral area of frons strongly projected laterodorsad to hold insertion of antenna. Compound eye large, slightly reniform, shortly notched at anterior margin opposite insertion of antenna, shallowly and broadly emarginate at posterior margin, strongly protruding beyond lateral and dorsal outline of head. Minimum interocular distance twice a length of dorsal eye portion. Tempus short, constricted posteriad, about third a length of dorsal eye portion. Head dorsal punctures dense, irregularly shaped (elliptical to penta- and hexagonal), moderately deep. Intervening spaces generally much narrower than punctures, rugulose-like elevated. Both punctures and intervening spaces with dense isodiametric microsculpture. Head dorsum and venter nearly glabrous, with separate short, inconspicuous setae; setae on labrum and external margin of mandible longer and more prominent. Antenna filiform, moderately long, extending slightly beyond metacoxal cavity when directed posteriad. Basal antennomere short and thickened, about twice as long as antennomere two. Antennomere three about 2.5–2.6× as long as preceding antennomere and about same length as antennomere four. Antennomeres 5–6 about same length, each about 1.2× as long as each antennomere three and four. Penultimate antennomere slightly shortened. Terminal antennomere elongate, 1.1 mm long, slightly arched distally, about 4.2× as long as penultimate and 1.2–1.3× as long as combined length of two preceding antennomeres. Terminal maxillary palpomere subcultriform. Pronotum opaque dorsally, subopaque to slightly glossy laterally and ventrally, flattened in dorsal aspect, dorsal shape subcylindrical, widest across midlength and base. Anterior and posterior margin subtruncate,

without anterior and basal rim. Antero- and posterolateral angle rounded; anterolateral angle barely protruding laterad dorsal view. Dorsal pronotal punctures similar as those on head but somewhat smaller, intervening spaces about as wide as punctures, elevated. Both punctures and intervening spaces with dense isodiametric microsculpture. Disc of pronotum glabrous. Prothoracic hypomeron slightly glossy, densely punctate, in part corrugate, with minute and sparse appressed whitish setae. Anterior margin of pronotum with a row of short, sparse, whitish setae. Scutellar shield small, triangular, rounded at posterior margin, opaque. Elytron elongate, slender, nearly parallel-sided, flattened dorsally. Humerus rounded, humeral callosity barely elevated. Postbasal transverse impression not indicated. Posterior sutural angle rounded in dorsal view. Elytral deflected lateral margin visible in dorsal view except at humerus. Three to four very inconspicuous, barely elevated longitudinal costae on each elytron. Elytral punctures small, rather deep, variably dense. Intervening spaces as wide as to 3× as wide as punctures, opaque and with dense isodiametric microsculpture. Disc of elytron glabrous. Epipleuron complete, sparsely punctate, widest in basal fourth. Metathoracic wings fully developed (functional). Legs long and slender. Femora slender, not clavate. Tibiae shorter than corresponding femora, without modifications. Protarsomeres somewhat widened likely pointing on arboreal lifestyle. Male basal metatarsomere as long as combined length of remaining metatarsomeres. Male tergite VII broadly rounded at posterior margin. Male morphological sternite VII subtruncate medially at posterior margin. Male morphological sternite IX of paired Y-like shaped, apically rather strongly expanded arms. Aedeagus as in Fig. 4.

Sexual dimorphism. Female (Fig. 3B) body comparatively more robust with somewhat wider elytra, minimum interocular distance 2–2.2× a length of dorsal eye portion, terminal antennomere 1 mm long, about 2.5–2.6× as long as penultimate antennomere and 1.2× as long as combined length of two preceding antennomeres, tergite VII and morphological sternite VII rounded at posterior margin.

Differential diagnosis. Due to the densely punctured, in main part greenish dorsum most similar to *Arthromacra subopaca* (Pic, 1910) (China: Yunnan) but is different in the opaque dorsum (the dorsum with the glossy intervening spaces between punctures in *A. subopaca*), the dark red pronotum (the dorsum uniformly bluish in *A. subopaca*), the dark legs and antennae (the legs and antennae pale rufous in *A. subopaca*), the comparatively less coarse and sparser elytral punctures, and the slightly larger body.

Ecology. Occurs at 1300–1900 m in primary mid-montane rainforest.

Distribution. Phou-Pan Mountain, Annamite Range, central Laos.

***Bothrichara costata* (Borchmann, 1916)**

New material studied. 1 specimen NME: W-PAPUA, Prov. Manokwari vic. Mokwam (Siyoubrig [sic!]) 1400-1800m 01°06.26'S 133°54.41'E, 24.-28.II.2007 leg. A. Weigel [printed]; 1 specimen DTC: WESTPAPUA, Prov. Manokwari 14km NE Ransiki, Warbiati, (Oransari) 1°18.25'S, 134°14.14'E 02.III.2007, leg. A. Weigel fresh cutting area [printed] [correct name of the collecting locality is Syoubri]. First records since the original description, first records from Doberai Peninsula of New Guinea.

***Bothrichara dani* sp. nov.** (Figs 5–6)

urn:lsid:zoobank.org:act:A2AD89A7-E39E-4244-B318-C77667C82E64

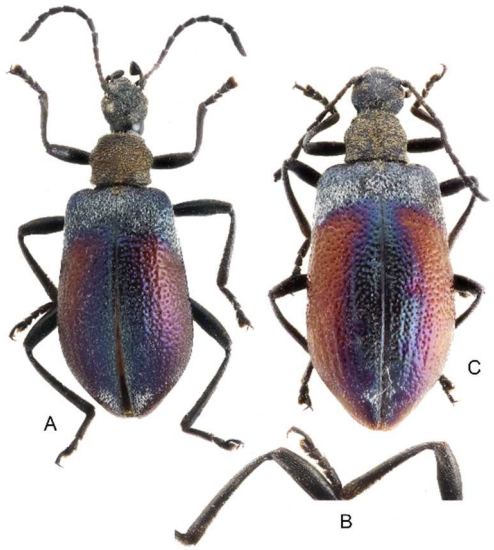

Fig. 5. *Bothrichara dani* sp. nov. A – Holotype male, habitus, dorsal view; B – ditto, meso- and metatibia, dorsal view; C – Paratype female, habitus, dorsal view [not to scale].

Fig. 6. *Bothrichara dani* sp. nov., holotype male, aedeagus in dorsal (A), ventral (B) and lateral (C) view.

Type material designated. Holotype male NME: INDONESIA Irian Jaya Wamena S, Kurima 1700 m 04°12'64"S 139°01'32"E 26.I.1999 leg. A.Weigel cult.area [printed] [the right terminal protarsomere is missing].

Paratypes 9 specimens. 1 male DTC, 1 male & 1 female NME: same label as holotype; 1 female DTC, 1 male & 3 females NME: INDONESIA Irian Jaya Wamena Ort 1700 m 24.I.1999 leg. A. Weigel KL [printed]; 1 male NME: INDONESIA, Irian Jaya Wamena W, Tailarek 04°03'84S; 138°44'85E 2300 m NN, 22.I.1999 leg. A.Weigel [printed].

Derivatio nominis. Named after Dani, the main tribe and language in Baliem Valley of New Guinea. Noun in apposition.

Measurements. Holotype male, total body length 11.4 mm; head length 1.6 mm, maximum head width across compound eyes 1.6 mm, pronotal length 1.8 mm, maximum pronotal width across premedian part 2.2 mm, elytral length 8 mm, combined maximum elytral width across postmedium 4.6 mm. Paratypes males 9.7–11 mm, paratypes females – 11.5–12 mm long.

Description. Holotype male (Fig. 5A). Dorsal and ventral forebody uniformly black. Elytra dark blue metallic along suture, very dark red on rest of elytral surface except postbasal area which is either black or dark blue metallic. Mouthparts, maxillary palps, antennae and legs black to dark brown. Head elliptical, about same wide as long, subopaque dorsally and ventrally. Labrum shallowly emarginate medially at anterior margin. Epistoma broadly emarginate at anterior margin. Frontoepistomal impression shallow. Anterolateral area of frons slightly projected laterally to hold insertion of antenna. Compound eye large, strongly kidney-shaped, strongly emarginate at anterior, subtruncate at posterior margin in lateral view, not touching

insertion of antenna, moderately prominent in lateral and dorsal aspects. Interfacetal setae not observed. Minimum interocular distance about 1.2× a length of dorsal eye portion. Tempus nearly as long as dorsal eye portion, constricted posteriad, posterior temporal angle rounded, head base subtruncate. Head dorsum densely punctate with flat punctures. Intervening spaces generally narrower than punctures, subopaque while microreticulate. Head dorsal setation inconspicuous, whitish, short, appressed, not concealing dorsal surface of head, directed generally anteriad. Antenna moderately long, filiform, extending towards metacoxa when directed posteriad. Basal antennomere thickened, about twice as long as antennomere two. Antennomere two shortened. Antennomere three about 3× as long as antennomere two, about as long as antennomere four. Antennomeres 8–10 slightly widened distally. Terminal antennomere slightly arched, apically bluntly pointed, 1 mm long, about twice as long as penultimate antennomere and longer than combined length of two preceding antennomeres. Terminal maxillary palpomere strongly securiform. Cranial 'neck' not exposed from beneath anterior margin of pronotum, glossy and impunctured. Pronotum transverse, opaque and flattened dorsally, subtruncate at both anterior and posterior margin. Maximum width before midlength, rather strongly expanding premedium on lateral margins, constricted anteriad and posteriad to this expansion. Anterior and posterior margin not beaded or rimed. Antero- and posterolateral angles obtuse angulate in dorsal view. Dorsal pronotal punctures moderately large, flat, dense. Intervening spaces narrower than to as wide as punctures, opaque while microreticulate. Dorsal pronotal setae yellowish, short, appressed, in part concealing sculpture of pronotal disc. Scutellar shield small, apically rounded, gently punctured and appressedly setose. Elytron widened postmedium, dorsally moderately convex, glossy. Apical sutural angle nearly right-angled. Elytral sculpture of dense, deep, rather large punctures and slightly elevated, glossy, variably wide intervening spaces. Lateral margin with vague lateral impression at basal third. Basal fifth of elytra covered with short, rather dense silvery setae, setation slightly expanding along lateral margins. An inconspicuous, elongate area of same dense silvery setae near suture in apical fifth on each elytron. Rest of elytron appressedly, sparsely and less conspicuous greyish to whitish setose. Epipleuron complete, broad at most of its length except at elytral apex, densely punctured and rather densely white setose. Metathoracic wings fully developed (functional). Ventral pterothorax and abdominal sternites densely white setose by short setae, in part effectively concealing their ventral sculpture. Legs long, slender, slightly glossy, with whitish to yellowish, moderately dense suberect to appressed setae. Femora slender, not clavate or thickened. Tibiae subequally long to corresponding femora, meso- and metatibia denticulate/serrate at inner margin in distal half (Fig. 5B). Tarsomeres somewhat widened likely pointing on arboreal lifestyle. Basal metatarsomere shorter than combined length of remaining metatarsomeres. Male tergite VII and morphological sternite VII broadly rounded at posterior margin. Aedeagus as in Fig. 6.

Sexual dimorphism. Female (Fig. 5C) generally larger and stronger globose than male. Minimum interocular distance about 1.5× a length of dorsal eye portion. Terminal antennomere about as long as combined length of two penultimate antennomeres. Meso- and metatibia without modifications, inner margin with comparatively stouter, suberect setae.

Interspecific variability. Purple reddish areas on elytra less prominent due to stronger blue metallic lustre in some male paratypes.

Differential diagnosis. This species is unique among all known congeners primarily due to the peculiar dorsal colouration, comparatively large body and complete absence of glossy impressions on elytra.

Ecology. Occurs in degraded habitats at 1700–2200 m. Diurnal.

Distribution. Baliem Valley, Central Cordillera of New Guinea.

***Bothrichara doberai* sp. nov.** (Figs 7–8)

urn:lsid:zoobank.org:act:2D9ED7A1-A768-4BD6-B90E-4A7EDC03C46D

Type material designated. Holotype male NME: W-PAPUA Manokwari Prov.ca. 18 km NW Ransiki, Anggi Gida, Kampung Itkau, 1890 m, 01°24.23'S, 133°55.53'E, 04.III.2007 leg. A. Skale cutting area /prim. forest [printed] [the right terminal antennomere is missing, the left terminal antennomere is detached, glued on the same card near the holotype].

Paratypes 5 specimens. 1 male ASC: same label as holotype; 1 female ASC & 1 female NME: W-PAPUA Manokwari Prov.vic. Mokwam (Siyoubrig [sic!]), 1400-1800m, 01°06.26'S, 133°54.41'E 24.-28.II.2007 leg. A. Skale [printed] [correct name of the collecting locality is Syoubri];1 female DTC & 1 female NME: W-PAPUA Manokwari Pr. ca. 18 km NW Ransiki, Anggi Gida, Kampung Itkau 01°24.23'S, 133°55.53'E 04.III.2007 leg.A.Weigel 1890 m cutt. area / UWP [printed].

Derivatio nominis. Named after Doberai (Bird's Head) Peninsula of New Guinea where the new species occurs. Noun in apposition.

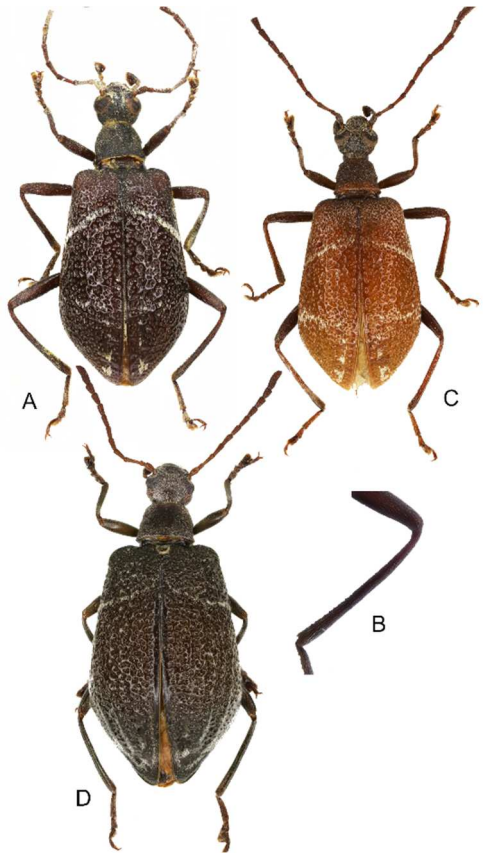

Fig. 7. *Bothrichara doberai* sp. nov. A – Holotype male, habitus, dorsal view; B – ditto, metatibia, dorsal view; C – Paratype male, habitus, dorsal view; D – Paratype-female, habitus, dorsal view [not to scale].

Measurements. Holotype male, total body length 7.1 mm; head length 1.1 mm, maximum head width across compound eyes 1.1 mm, pronotal length 1 mm, maximum pronotal width across base 1.3 mm, elytral length 5 mm, combined maximum elytral width across postmedium 3.1 mm. Paratype male (Fig. 7C) 7.5 mm, paratypes females – 8.7–10.1 mm long.

Description. Holotype male (Fig. 7A, C). Dorsal and ventral forebody uniformly black. Elytra dark brown, abdomen black. Mouthparts, maxillary palps, antennae and legs dark brown.

Fig. 8. *Bothrichara doberai* sp. nov., holotype male, aedeagus in dorsal (A), ventral (B) and lateral (C) view.

Head elliptical, about same wide as long, opaque dorsally and ventrally. Labrum shallowly emarginate medially at anterior margin. Epistoma shallowly emarginate at anterior margin. Frontoepistomal impression moderately deep, distinct. Anterolateral area of frons moderately projected laterodorsad to hold insertion of antenna. Compound eye large, kidney-shaped, strongly emarginate at anterior, subtruncate at posterior margin in lateral view, touching insertion of antenna, moderately prominent in lateral and dorsal aspects. Interfacetal setae not observed. Minimum interocular distance about 0.7× a length of dorsal eye portion. Tempus about half a length of dorsal eye portion, constricted posteriad, posterior temporal angle rounded, head base truncate. Head dorsum densely punctate with flat punctures. Intervening spaces generally as wide as punctures, subopaque. Head dorsal setation inconspicuous, whitish to silvery, short, appressed, in part concealing dorsal surface of head, directed generally anteriad. Epistoma and labrum with much longer but sparser suberect setae. Antenna long, filiform, extending slightly beyond metacoxa when directed posteriad. Basal antennomere slightly thickened, about 1.5–1.6× as long as antennomere two. Antennomere two shortened. Antennomere three about 2.2× as long as antennomere two, as long as antennomere four. Antennomeres 9–10 slightly widened distally. Terminal antennomere slightly arched, apically bluntly pointed, 0.7 mm long, about 2.2× as long as penultimate antennomere and somewhat shorter than combined length of two preceding antennomeres. Terminal maxillary palpomere strongly securiform. Cranial 'neck' not exposed from beneath anterior margin of pronotum, subopaque dorsally, glossy ventrally. Pronotum trapezoid, slightly transverse, opaque and flattened dorsally, subtruncate at both anterior and posterior margin. Maximum width across base, slightly expanding medially on lateral margins about midlength, slightly constricted anteriad. Anterior and posterior margin not beaded or rimed. Antero- and posterolateral angles obtuse angulate in dorsal view. Dorsal pronotal punctures small, flat, moderately dense. Intervening spaces variably narrower, opaque while in part microreticulate to slightly glossy when smooth. Dorsal pronotal setae as those on head, effectively concealing sculpture of pronotal disc. Scutellar shield small, elongated, apically rounded, densely punctured and appressedly setose. Elytron widened postmedium, dorsally moderately convex, slightly glossy. Apical sutural angle rounded. Elytral sculpture of dense, deep, large to smaller punctures and slightly elevated, in part glossy, variably wide intervening spaces building rugulose pattern. Whole dorsum, including both punctures and elevated rugules, covered with inconspicuous, very

sparse, short, curved whitish setae. Setae becoming apparently denser on postbasal area. Setae arranged denser and building vague whitish markings on elytra: a narrow transverse band in basal fourth (slightly producing anteriad along suture) and T-shaped band in apical third with longitudinal part of this marking being double (e.g. a narrow band each side of suture). Epipleuron complete, broad at most of its length except at elytral apex, densely punctured and rather densely white setose. Metathoracic wings fully developed (functional). Ventral pterothorax and abdominal sternites densely white setose by short setae, in part effectively concealing their ventral sculpture. Legs long, slender, femora and tibiae subopaque, with whitish, inconspicuous, moderately dense appressed setae. Femora slender, not clavate or thickened. Tibiae subequally long to corresponding femora, metatibia denticulate/serrate at inner margin in distal half (Fig. 7B). Tarsomeres somewhat widened likely pointing on arboreal lifestyle. Basal metatarsomere shorter than combined length of remaining metatarsomeres. Male tergite VII and morphological sternite VII broadly rounded at posterior margin. Aedeagus as in Fig. 8.

Sexual dimorphism. Female (Fig. 7D) much larger and stronger globose than male. Female dorsum uniformly dark brown, venter uniformly black. Mouthparts, maxillary palps, antennae and legs brown to dark brown. Minimum interocular distance about 1.3× a length of dorsal eye portion. Tempus about half a length of dorsal eye portion, posterior temporal angle rounded, head base subtruncate. Antenna moderate, filiform with somewhat thickened antennomeres 9–11, extending slightly beyond mesocoxa when directed posteriad. Basal antennomere shortened and thickened, about 1.3× as long as antennomere two. Antennomere two shortened. Antennomere three about 2.2× as long as antennomere two, slightly longer than antennomere four. Antennomeres 9–10 slightly widened distally. Terminal antennomere slightly asymmetrical, apically bluntly pointed, 0.65 mm long, about 2.1× as long as penultimate antennomere and about as long as combined length of two preceding antennomeres. Pronotum trapezoid, transverse, opaque and flattened dorsally, subtruncate at both anterior and posterior margin. Maximum width across base, slightly expanding medially on lateral margins about mid-length, slightly constricted anteriad. Elytron strongly widened postmedium, dorsally strongly convex, slightly glossy. Apical sutural angle slightly produced posteriad, rounded. Elytral sculpture of dense, deep, variably large to small punctures and strongly elevated, in part strongly glossy, variably narrow intervening spaces building strongly rugulose pattern. Whole dorsum, including both punctures and elevated rugules, covered with inconspicuous, very sparse, short, curved whitish setae. Setae becoming apparently denser on elevated intervening spaces on postbasal area. Setae arranged denser and building vague whitish markings on elytra: a narrow transverse band in basal fourth (slightly producing anteriad along suture), two-three short longitudinal bands on apical fourth, a zigzag-shaped transverse preapical band. Tibiae subequally long to corresponding femora, without modifications. Female basal metatarsomere much shorter than combined length of remaining metatarsomeres. Female tergite VII and morphological sternite VII broadly rounded at posterior margin.

Interspecific variability. Forebody, antennae and legs are black in one paratype, elytra brown in pale brown in one paratype.

Differential diagnosis. This species is unique among all known congeners primarily due to the rugulose, glossy elytra provided with a narrow transverse postbasal and a complex of longitudinal preapical bands of short, dense setae and densely

whitish setose periphery of the scutellar shield.

Ecology. Occurs in primary mid-montane rainforest at 1400–1890 m. Diurnal, observed on low vegetation.

Distribution. Arfak Mountains in Doberai Peninsula of New Guinea.

***Bothrichara skalei* sp. nov.** (Figs 9–11)

urn:lsid:zoobank.org:act:F028740B-697B-4C5B-869B-C7487031FD43

Type material designated. Holotype male NME: W-PAPUA Manokwari Prov.ca. 18 km NW Ransiki, Anggi Gida, Kampung Itkau, 1890 m, 01°24.28'S, 133°55.53'E, 04.III.2007 leg. A. Skale cutting area /prim. forest [printed].

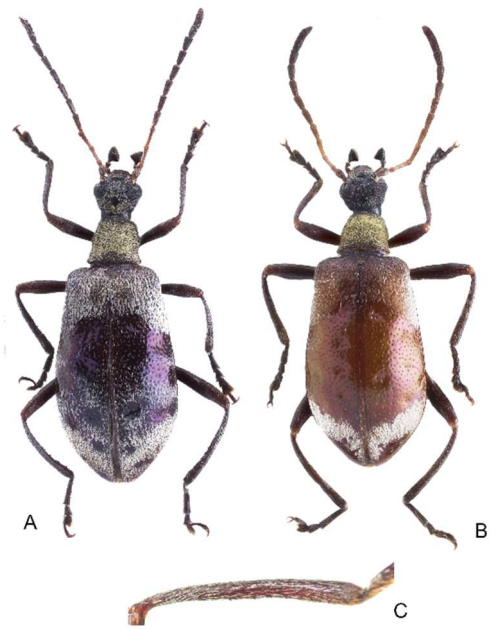

Fig. 9. *Bothrichara skalei* sp. nov. A – Holotype male, habitus, dorsal view; B – Paratype male, habitus, dorsal view; C – Paratype male, metatibia, dorsal view [not to scale].

Paratypes 62 specimens. 8 males & females ASC, 1 female BMNH, 2 males & females DTC: same label as holotype; 1 male DTC: Manokwari Pr. vic. Mokwam (Siyoubrig [sic!]), 1400-1800m, 01°06.26'S, 133°54.41'E,24.-28.II.2007 leg. A. Skale [printed]; 2 males & 1 female DTC, 1 male & 1 female NME: W-PAPUA Manokwari Pr. vic. Mokwam (Siyoubrig [sic!]), 1400-1800m, 01°06.26'S, 133°54.41'E,24.-28.II.2007 leg. A.Weigel UWP/UWS [printed]; 1 male DTC & 2 females NME: W-PAPUA Manokwari Prov.vic. Mokwam (Siyoubrig [sic!]), 1400-1800m, 01°06.26'S, 133°54.41'E24.-28.II.2007 leg. A. Skale [printed]; 1 male DTC, 2 males & 1 female NME: W PAPUA Manokwari Pr Vic Mokwam (Siyoubrig [sic!]) 1400-1800 m, 01°06.26'S 133°54.41'E 24-28.ii.2007 leg. A. Weigel UWS/UWP [printed]; 4 males NME: W PAPUA Manokwari Pr. Vic.Mokwam (Siyoubrig [sic!]) 1400-1800m, 01°06.26'S 133°54.41'E,24-28.ii.2007 leg. A. Weigel UWS/UWP [printed]; 1 female DTC: W-PAPUA Manokwari Pr. Vic. Mokwam (Siyoubrig [sic!]) 1400-1800 m, 01°06.26'S, 133°54.41'E,24.-28.II.2007 leg. A.Weigel UWP/UWS [printed]; 1 female BMNH, 1 male & 13 females NME: W-PAPUA Manokwari Pr. Vic. Mokwam (Siyoubrig [sic!]) 1400-1800 m, 01°06.26'S, 133°54.41'E,24.-28.II.2007, leg. A.Weigel [printed]; 1 male & 4 females NME: WESTPAPUA, Prov. Manokwari, vic. Mokwam, Slyoubrig [sic!] 1400-1800m NN // 01°06.26'S 133°54.41'E24.-28.II.2007 leg. A. Skale [printed]; 3 females NME: New Guinea, West-Papua Arfak Mts., Mokwam (Siyoubrig [sic!]) 1400-1800 m S0106.25.86'E13354.40.86 24.-28.2.2007, R. Gerstmeier [printed]; 1 male DTC, 1 male & 2 females NME: WESTPAPUA, Prov. Manokwari 14 km NE Ransiki, Warbiati, (Oransari) 1°18.25'S, 134°14.14'E 02.III.2007, leg. A. Weigel fresh cutting area [printed]; 1 male DTC, 1 male & 3 females NME: WESTPAPUA, Prov.

Manokwari, ca.10km NW Ransiki, Kali Way 1300m, 1°25.03'S 134°01.49'E,03.III. 2007, leg. A.Weigel, riverside [printed]; 1 female NME: WESTPAPUA, Prov. Manokwari, 6 km N Manokwari, Desa Pami 160 m, 0°48.34'S,134°03.15'E,09. III.2007, leg. A.Weigel, cut. area/sec. for. [printed]. Correct name of one of the collecting localities is Syoubri (the name is misspelt on all labels where applicable).

Derivatio nominis. Named for one of the first collectors, André Skale (Gera, Germany).

Measurements. Holotype male, total body length 8.1 mm; head length 1.2 mm, maximum head width across compound eyes 1.2 mm, pronotal length 1.2 mm, maximum pronotal width across base 1.4 mm, elytral length 5.7 mm, combined maximum elytral width across postmedium 3 mm. Selected male paratypes 7.1–8.5 mm, female paratypes 10.4–12.5 mm long.

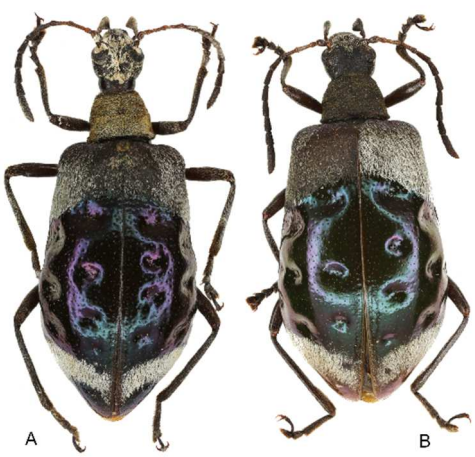

Fig. 10. *Bothrichara skalei* sp. nov., paratypes females, habitus dorsal view. A – Specimen with yellowish pronotal setation; B – Specimen with greyish pronotal setaetion [not to scale].

Fig. 11. *Bothrichara skalei* sp. nov., holotype male, aedeagus in dorsal (A), ventral (B) and lateral (C) view.

Description. Holotype male (Fig. 9A). Dorsal and ventral forebody uniformly black. Elytra black with dark blue metallic lustre, abdomen and legs uniformly black. Mouthparts, maxillary palps, antennae and legs dark brown. Head elliptical, about same wide as long, opaque dorsally and ventrally. Labrum subtruncate to shallowly emarginate medially at anterior margin. Epistoma broadly U-shapely emarginate at anterior margin. Frontoepistomal impression moderately deep, distinct. Anterolateral area of frons moderately projected laterodorsad to hold insertion of antenna. Compound eye large, kidney-shaped, strongly emarginate at anterior, shallowly and broadly - at posterior margin in lateral view, not touching insertion of antenna, moderately prominent in lateral and dorsal aspects. Interfacetal setae not observed. Minimum interocular distance about 0.8× a

length of dorsal eye portion. Tempus about half a length of dorsal eye portion, constricted posteriad, posterior temporal angle rounded, head base subtruncate. Head dorsum densely punctate with flat punctures. Intervening spaces generally as wide as punctures, subopaque to in part glossy. Head dorsal setation inconspicuous, whitish to yellowish, short, appressed, in part concealing dorsal surface of head, directed generally anteriad. Epistoma and labrum with few much longer suberect setae. Antenna long, filiform, extending well beyond mesocoxa when directed posteriad. Basal antennomere slightly thickened, about 1.8× as long as antennomere two. Antennomere two shortened. Antennomere three about 3.3× as long as antennomere two, as long as to 1.1× as long as antennomere four. Antennomeres 5–11 slightly thickened, of them 9–10 slightly widened distally. Terminal antennomere asymmetrical, apically acutely pointed, 0.8 mm long, about twice as long as penultimate antennomere and about as long to slightly longer than combined length of two preceding antennomeres. Terminal maxillary palpomere strongly securiform. Cranial 'neck' glossy, sparsely punctate. Pronotum trapezoid, slightly transverse, opaque and flattened dorsally, subtruncate at both anterior and posterior margin. Maximum width across base, slightly expanding medially on lateral margins about midlength, slightly constricted anteriad. Anterior and posterior margin not beaded or rimed. Antero- and posterolateral angles rounded in dorsal view. Dorsal pronotal punctures small, flat, very dense. Intervening spaces narrow, opaque while microreticulate. Dorsal pronotal setae yellowish, short, strongly appressed, dense, effectively concealing sculpture of pronotal disc. Scutellar shield small, subtriangular, apically rounded, punctured and appressedly setose. Elytron widened postmedium, dorsally moderately convex, slightly glossy. Apical sutural angle rounded. Elytral sculpture of dense, moderately deep, large punctures and slightly glossy, variably wide intervening spaces. Whole dorsum, including both punctures and elevated rugules, covered with inconspicuous, sparse to dense, short, curved silvery setae. Setae becoming apparently denser on postbasal and apical area and randomly on some parts of subglabrous median area of elytron. Subglabrous median part of elytron with several weak, moderately large impressions, three to four along suture, three between suture and lateral margin and three at lateral margin. Epipleuron complete, broad at most of its length except at elytral apex, densely punctured and rather densely white setose. Metathoracic wings fully developed (functional). Ventral pterothorax and abdominal sternites densely white setose by short setae, in part effectively concealing their ventral sculpture. Legs long, slender, femora and tibiae subopaque, with whitish, inconspicuous, moderately dense appressed setae. Femora slender, not clavate or thickened. Tibiae subequally long to corresponding femora, male meso- and metatibia somewhat flattened and denticulate/serrate at inner margin (Fig. 9C). Tarsomeres somewhat widened likely pointing on arboreal lifestyle. Basal metatarsomere shorter than combined length of remaining metatarsomeres. Tergite VII and morphological sternite VII broadly rounded at posterior margin. Aedeagus as in Fig. 11.

Sexual dimorphism. Female (Fig. 10) is much larger and strongly globose compared to male. Minimum interocular distance 1.25× a length of dorsal eye portion. Tempus slightly over a half a length of dorsal eye portion, constricted posteriad with rounded posterior temporal angle, head base subtruncate. Female antenna moderate, filiform with somewhat thickened antennomeres 8–11, extending or nearly so towards metacoxa when directed posteriad. Basal antennomere shortened and thickened, about 1.4× as long as antennomere two. Antennomere two shortened.

Antennomere three about 2.6–2.7× as long as antennomere two, as long as antennomere four. Antennomeres 5–10 subcylindrical, slightly widened distally. Terminal antennomere elongated, slightly arched, apically bluntly pointed, 0.8 mm long, about 2–2.1× as long as penultimate antennomere and about as long as combined length of two preceding antennomeres. Pronotum trapezoid, transverse, opaque and flattened dorsally, subtruncate at both anterior and posterior margin. Maximum width across base, slightly expanding medially on lateral margins about midlength, constricted anteriad. Elytron widened in apical third, dorsally strongly convex except at base, glossy except on densely setose areas where subopaque. Two densely setose and punctured areas on elytra – basal one occupying about a fourth of elytral length, broadly emarginate posteriad and a narrow, oblique preapical band. Elytral punctures on densely setose areas small and dense with narrow but glossy intervening spaces. Extensive glabrous to nearly glabrous areas of elytra with variably large glabrous circular depressions. On each elytron there are 3–5 depressions along suture, three sublateral and 2–3 somewhat smaller lateral nearly touching lateral margin of elytron. Punctures irregular, circular to strongly elliptical, on glossy areas, intervening spaces as wide as to 3× as wide as punctures; also depressions are punctured. Each puncture on glossy areas with a fine curved seta not surpassing length of corresponding puncture. At densely punctured and setose areas setae are silvery, short, appressed, fully concealing dorsal sculpture of these areas. Apical sutural angle subacute, rounded. Tibiae subequally long to corresponding femora, without modifications. Basal metatarsomere about 0.9× as long as combined length of remaining metatarsomeres. Female tergite VII and morphological sternite VII broadly rounded at posterior margin.

Interspecific variability. Elytra pale brown with weak blue metallic lustre or black with purple metallic lustre in some male paratypes. Dense patches of silvery elytral setation reduced to basal and apical areas in several male paratypes, not extending to a generally glabrous median part of elytra. In some male paratypes, posterolateral area of elytral apex is glabrous, in other whole elytral apex densely setose. Size, depth, and number of elytral circular impressions varies in males and females. Glabrous areas of elytra with purple metallic lustre in several female paratypes. Dorsal vestiture of pronotum yellowish in several female paratypes.

Differential diagnosis. The new species is specifically different from the similar congeners due to the combination of the following features: the glossy elytral area without clusters of the dense whitish pubescence as in *B. argyrostigma* Merkl, 1990 (Central Cordillera of New Guinea), the elytral impressions on median (main) part of the elytral disc are not surrounded by short, dense setae as in *B. iridescens* Merkl, 1988 (Central Cordillera of New Guinea), the number and position of the elytral impressions is different from that in *B. iridescens* and the apical area of the elytra with the areas of dense setae which are not present in *B. iridescens*,the elytra with the distinct metallic lustre and the glabrous elytral impressions large and distinct and the apex of the aedeagus prolonged into a process (the elytra are not metallic and the elytral impressions shallow and less conspicuous, the apex of the aedeagus subtriangular in *B. pulchella* (Guérin-Méneville, 1830) (New Guinea). The aedeagus is very similar in shape to that of *B. iridescens*.

Ecology. Occurs in primary and disturbedlowland to mid-montane rainforests and forest edges and clearings at 160–1890 m.

Distribution. Doberai Peninsula of New Guinea.

***Bothynogria annamita* sp. nov.** (Figs 12-13)

urn:lsid:zoobank.org:act:18AA7124-0A2C-40B5-8FF3-6BF106302B6F

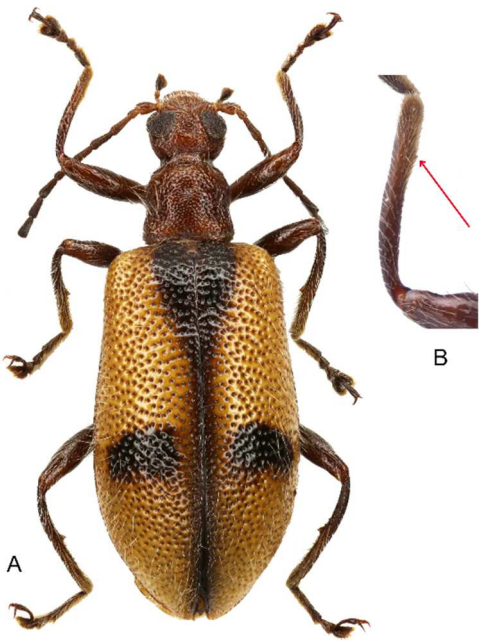

Fig. 12. *Bothynogria annamita* sp. nov., holotype male. A – Habitus, dorsal view; B – Right protibia, dorsal view [not to scale].

Type material designated. Holotype male NME: C–VIETNAM, Thira Thiên-Huế Pr. Phú Lộc, Bach Mã NP, 16°11'39"N 107°51'12"E, 1250–1400m 05.-09.V.2019, leg. A. Skale cutting area /prim. forest [printed] [the antennomeres 10–11 of the left and 9–11 of the right antenna missing].

Derivatio nominis. Named after the Annamite Range in Indochina Peninsula where the new species occurs.

Measurements. Holotype male, total body length 8.3 mm; head length 1.3 mm, maximum head width across compound eyes 1.3 mm, pronotal length 1.3 mm, maximum pronotal width across base 1.5 mm, elytral length 6 mm, combined maximum elytral width across postmedium 3.4 mm.

Description. Holotype male (Fig. 12A).

Dorsal and ventral forebody uniformly dark rufous. Elytra yellow, narrow, elongate scutellar spot, suture and irregularly shaped, transversely-elliptical median spot black to black-brown. Legs dark rufous, three to four terminal antennomeres nearly black. Ventral pterothorax black-brown, abdomen brown with yellowish terminalia. Head elliptical, about same wide as long, slightly glossy dorsally and ventrally. Labrum shallowly emarginate at anterior margin. Epistoma deeply V-shapely emarginate at anterior margin. Frontoepistomal impression deep, distinct. Anterolateral area of frons slightly projected laterodorsad to hold insertion of antenna. Compound eye large, strongly kidney-shaped, strongly emarginate at anterior, broadly and shallowly - at posterior margin in lateral view, not touching insertion of antenna, moderately prominent in lateral and dorsal aspects. Interfacetal setae not observed. Minimum interocular distance about 0.8× a length of dorsal eye portion. Tempus about half a length of dorsal eye portion, constricted posteriad, posterior temporal angle rounded, head base subtruncate. Head dorsum moderately densely punctate with circular to irregularly shaped, moderately deep punctures. Intervening spaces narrower than to as wide as punctures, glossy. Head dorsal setation yellowish, long to moderate, moderately dense, sub- to erect, not concealing dorsal sculpture of head. Antenna long, filiform and slender, antennomeres 1–10 extending towards mesocoxa when directed posteriad (the total length of male antenna is unknown since two terminal

antennomeres of both antennae are missing in the only available specimen). Basal antennomere slightly thickened, about 1.7× as long as antennomere two. Antennomere two strongly shortened. Antennomere three about 2.5× as long as antennomere two, about as long as each antennomere four and five. Antennomeres 7–9 slightly thickened compared to previous antennomeres, denser punctured and subopaque. Terminal maxillary palpomere strongly securiform. Cranial 'neck' partially exposed from beneath anterior margin of pronotum, glossy dorsally and ventrally, punctured similar as head dorsum. Pronotum trapezoid, slightly transverse, slightly glossy dorsally and laterally, and flattened dorsally, subtruncate at both anterior and posterior margin. Maximum width across base, slightly expanding premedium on lateral margins, slightly constricted anteriad and prebasally. Anterior rim or bead not present, posterior margin indistinctly beaded by a row of punctures. Antero- and posterolateral angles obtuse angulate in dorsal view. Pronotal disc with a vague, paired elliptical postmedian impression. Dorsal pronotal punctures similar to those on dorsal head but denser and shallower. Intervening spaces narrower than punctures, slightly elevated, glossy. Dorsal pronotal setae as those on head but whitish and some setae appressed. Pronotal hypomeron separated from disc by rather deep furrow which discontinuous shortly ahead of posterolateral angle. Scutellar shield small, triangular, apically pointed, glossy, setose. Elytron widened postmedium, dorsally moderately convex, slightly glossy. Apical sutural angle narrowly rounded. Elytral punctures more regularly circular and larger but sparser compared to those on dorsal forebody, rather deep. Intervening spaces generally wider than to as wide as punctures. glossy. Elytral setae whitish, long, moderately dense, suberect. Epipleuron complete, broad in basal half, densely punctured and sparsely setose. Metathoracic wings fully developed (functional). Legs long, slender, femora and tibiae slightly glossy, femora slightly thickened, sparsely setose, tibiae densely and long, whitish to yellowish setose. Tibiae subequally long to corresponding femora. Male protibia with a minute denticle in distal third at inner margin (Fig. 12B), meso- and metatibia with a conspicuous median denticle at inner margin and a row of much smaller denticles (one or two in front and several between median denticle and distal part of tibia) (Fig. 9a). Tarsomeres widened likely pointing on arboreal lifestyle. Basal metatarsomere shorter than combined length of remaining metatarsomeres. Male tergite VII and morphological sternite VII broadly rounded at posterior margin. Aedeagus as in Fig. 13.

Fig. 13. *Bothynogria annamita* sp. nov., holotype male, aedeagus in dorsal (A), ventral (B) and lateral (C) view.

Sexual dimorphism. Female is unknown.

Differential diagnosis. *Bothynogria annamita* sp. nov. is unique among its congeners due to the striking dorsal body colouration, the unidenticulate protibia, the long setae of the dorsum and the remarkably shallow (indistinct)paired postmedian impression of the pronotum.

Ecology. Occurs at about 1250–1400 m. Diurnal, observed on low vegetation.

Distribution. Annamite Range in central Vietnam.

Note. Male terminal antennomere is serrate/denticulate or carinate at posterior margin (Borchmann 1936; Wu et al. 2021). Since the shape of male terminal antennomere remains unknown for this species, its position in *Bothynogria* is tentative.

***Chlorophila semialutaceua* (Pic, 1915)**

New material studied. 1 specimen NME: NEPAL, Prov. Koshi Num bis Chichira 1700 – 2100 m NN, 15.X.2002 leg.: J. Weipert [printed]. First record from Nepal, first record since the original description (see Telnov 2023).

***Cerogria* s. l. *critica* sp. nov.** (Figs 14–15)

urn:lsid:zoobank.org:act:89552F36-73BA-436B-908F-4FABF525347E

Type material designated. Holotype male NME: INDONESIA, Sulawesi, South Sulawesi Prov., Palopo 9 km NW, Battang vill., 2°57'S, 120°07'E, 10.XII.2017, 420 m, disturbed lowland rainforest, daytime collecting [printed].

Paratypes 3 specimens. 2 females NME & 1 female DTC: same label as holotype.

Derivatio nominis. Named from Latin 'criticus' to point on weakness of the present concept of lagriine genera, in general, and *Cerogria*-similar genera, in particular, introduced by Borchmann in the early 1900s and largely unchanged since that. See 'Discussion' for the details.

Measurements. Holotype male, total body length 8.3 mm; head length 1.2 mm, maximum head width across compound eyes 1.3 mm, pronotal length 1.5 mm, maximum pronotal width across midlength 1.55 mm, elytral length 5.6 mm, combined maximum elytral width across postmedium 3 mm. Paratype females 9.3–9.8 mm long.

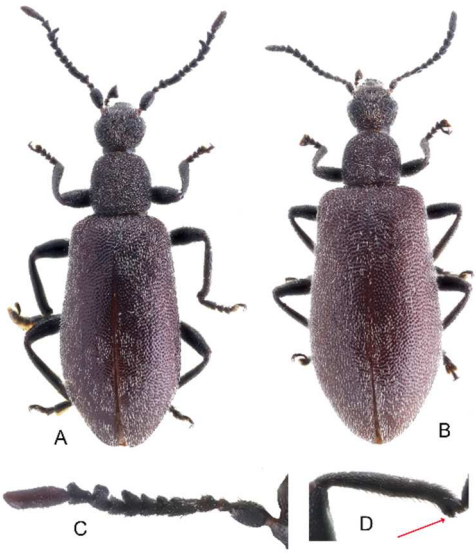

Fig. 14. *Cerogria* s. l. *critica* sp. nov. A – Holotype male, habitus, dorsal view; B – Paratype female, habitus, dorsal view; C – Holotype male, left antenna, anterodorsal view; D – ditto, metatibia, dorsal view [not to scale].

Description. Holotype male (Fig. 14A). Dorsal and ventral forebody uniformly black to black-brown. Elytra dark brown. Ventral pterothorax and abdomen dark brown. Mouthparts, maxillary palps, antennae and legs black to black-brown. Head elliptical, about same wide as long,

opaque dorsally and ventrally. Labrum shallowly emarginate medially at anterior margin. Epistoma broadly and shallowly emarginate at anterior margin. Frontoepistomal impression moderately deep, distinct. Anterolateral area of frons moderately projected laterodorsad to hold insertion of antenna, glossy and smooth. Compound eye large, strongly kidney-shaped, strongly emarginate at anterior, shallowly and broadly - at posterior margin in lateral view, not touching insertion of antenna, slightly prominent in lateral and dorsal aspects. Interfacetal setae not observed. Minimum interocular distance about 0.7–0.8× a length of dorsal eye portion. Tempus about half a length of dorsal eye portion, constricted posteriad, posterior temporal angle rounded, head basetruncate. Head dorsum densely punctate with flat elliptical punctures with opaque background. Intervening spaces narrowerthan punctures, slightly glossy. Head dorsal setation inconspicuous, yellowish, rather short, suberect, directed generally anteriad. Few much longer suberect setae on epistoma and labrum. Antenna (Fig. 14C) moderate, filiform, extending towards mesocoxa when directed posteriad. Basal antennomere strongly thickened, elongate, about 2.6× as long as antennomere two. Antennomere two shortened, somewhat widened apically. Antennomere three shortened, broadly widened distally, transverse, with non-prominent distal lobe at anterior margin, about 1.2× as long as antennomere two. Antennomere four the longest among antennomeres 2–10, asymmetrical, slightly thickened and arched (shallowly impressed at anterior margin). Antennomere five the shortest among all antennomeres, strongly transverse. Antennomere six asymmetrically trapezoid, short ad thick, flattened at anterior margin, with non-prominent antero-ventro-distal lobe. Antennomere seven strongly asymmetrical, longer than previous, flattened at anterior margin, antero-ventro-distal lobe longer and strongly angulate. Antennomere eight shorter than previous, strongly asymmetrical, with distinct antero-distal lobe, flattened at anterior margin. Antennomere nine strongly asymmetrical, with a strong antero-distal lobe therefore transverse. Antennomere ten slightly longer than previous, asymmetrical, with less prominent antero-distal lobe than previous. Terminal antennomere asymmetrically fusiform, apically rounded, 0.7 mm long, about 2.3× as long as penultimate antennomere and slightly longer than combined length of two preceding antennomeres. Terminal maxillary palpomere securiform. Cranial ‘neck’ distinctly less coarsely punctate than dorsal head. Pronotum broadly subcylindrical, about as long as wide, opaque and flattened dorsally, subtruncate at both anterior and posterior margin. Maximum width across midlength, barely constricted anteriad and posteriad. Anterior and posterior margin not beaded or rimed. Antero- and posterolateral angles obtusely angulate in dorsal view. Dorsal pronotal punctures pentagonal to elliptical, coarse, very dense, with opaque background. Intervening spaces narrower than punctures, glossy. Dorsal pronotal setae similar to those on dorsal head, not concealing sculpture of pronotal disc. Scutellar shield small, apically rounded, densely punctured. Elytron elongate, slightly widened postmedium, dorsally slightly convex, subopaque. Apical sutural angle rounded. Elytral sculpture similar to that on pronotal disc but generally smaller and somewhat sparser. Intervening spaces in part narrower than in part wider than punctures, glossy. Elytral setae inconspicuous, yellowish, short, curved, directed posteriad. Epipleuron complete, very broad at anterior third, densely punctured and setose as an elytral disc. Metathoracic wings fully developed (functional). Legs stout, femora and tibiae slightly glossy, with whitish, inconspicuous, appressed setae. Femora somewhat thickened. Tibiae subequally long to corresponding femora. Male protibia widened distally. Male mesotibia some-

what curved, inner margin with inconspicuous median swelling and distally withconspicuous, densely setose hook (Fig. 14D); long setae along posterior margin between a swelling and hook. Protarsomeres 2–4 conspicuously short. Basal metatarsomere shorter than combined length of remaining metatarsomeres. Tergite VII and morphological sternite VII broadly rounded at posterior margin. Aedeagus as in Fig. 15.

Fig. 15. *Cerogria* s. l. *critica* sp. nov., holotype male, aedeagus in dorsal (A), ventral (B) and lateral (C) view.
Paratypes 3 specimens. 2 females NME & 1 female DTC: same label as holotype.

Sexual dimorphism. Female (Fig. 14B) minimum interocular distance about as wide as length of dorsal eye portion, elytra less slender, comparatively stronger widened posteriad, antennomeres 1–8 without modifications, 8–10 with weak antero-distal lobe, terminal antennomere fusiform, longer than combined length of two preceding antennomeres, antennomere four the longest among items 1–10, protibia comparatively not or less distinctly widened distally, mesotibia without modifications and not curved.

Differential diagnosis. The new species is unique in its genus primarily due to the structure of the male antenna in the combination with the shape of the aedeagus.

Ecology. Occurs in disturbed lowland rainforest at about 400 m. Diurnal, observed on low vegetation.

Distribution. Southern Sulawesi.

Note. This species with the strongly modified intermediary antennomeres 3, 4, 7, 9–10 does not fit in any of subgenera of *Cerogria* as of Borchmann (1936).

***Cerogria* (*Drepanomela*) *cribratula* (Schaufuss, 1887)** (Figs 16–18)

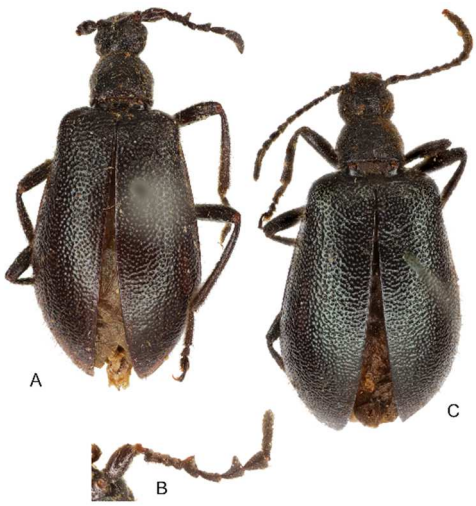

Fig. 16. *Cerogria* (*Drepanomela*) *cribratula* Schaufuss, 1887. A – Lectotype male, habitus, dorsal view; B – ditto, right antenna; C – Paralectotype female, habitus, dorsal view [not to scale].

Type material examined. Lectotype [designated herewith] MFNB (Fig. 16A):♂ [handwritten] // Coll.L. W. Schaufuß [printed] // Type [printed, label red] // 100105 [handwritten] // Hist.-Coll. (Coleoptera) Nr. 100105 Lagria cribratula

Schaufuss Süd Celebes, Coll. Schaufuss Zool. Mus. Berlin [printed, black frame, label yellow] // SYNTYPE Lagria cribratula Schaufuss, 1887 labelled by MFNB 2023 [printed, label red].

Paralectotypes 3 females MFNB. 1 female: Lagria cribratula S Celebes ♀ [handwritten] // Coll. L. W. Schaufuß [printed] // 100105 [printed] // Type [printed, label red] // Hist.-Coll. (Coleoptera) Nr. 100105 Lagria cribratula Schaufuss Süd Celebes, Coll. Schaufuss Zool. Mus. Berlin [printed, black frame, label yellow] // SYNTYPE Lagria cribratula Schaufuss, 1887 labelled by MFNB 2023 [printed, label red]; 2 females: Coll. L. W. Schaufuß [printed] // Type [printed, label red] // 100105 [handwritten] // Hist.-Coll. (Coleoptera) Nr. 100105 Lagria cribratula Schaufuss Süd Celebes, Coll. Schaufuss Zool. Mus. Berlin [printed, black frame, label yellow] // SYNTYPE Lagria cribratula Schaufuss, 1887 labelled by MFNB 2023 [printed, label red].

Fig. 17. *Cerogria* (*Drepanomela*) *cribratula* (Schaufuss, 1887), specimens from Makale 5 km SW, Sulawesi. A – Male, habitus, dorsal view; B – Female, habitus, dorsal view [not to scale].

The lectotype designation is made to maintain the nomenclatural stability since in *Cerogria* Borchmann, 1911 only males possess diagnostic features, and it therefore appears important to designate a male specimen as the lectotype.

New material examined. 1 male DTC: INDONESIA, Sulawesi, South Sulawesi Prov., Makale 5 km SW, 3°08'S, 119°49'E, 01.I.2018, 1500 m, disturbed mid-montane rainforest, MV light [printed]; 1 female DTC: INDONESIA, Sulawesi, South Sulawesi Prov., Makale 5 km SW, 3°08'S, 119°49'E, 10.I.2018, 1700 m, disturbed mid-montane rainforest, daytime collecting [printed]. First records since the original description.

Fig. 18. *Cerogria* (*Drepanomela*) *cribratula* (Schaufuss, 1887), male from Makale 5 km SW, Sulawesi, aedeagus in dorsal (A), ventral (B) and lateral (C) view.

Measurements. Lectotype male, total body length 11.2 mm; head length 1.6 mm, maximum head width across compound eyes

1.6 mm, pronotal length 1.7 mm, maximum pronotal width across midlength 1.8 mm, elytral length 7.9 mm, combined maximum elytral width across postmedium 4.2 mm. Femaleparalectotypes 12.8–13.8 mm long. Male from Makale 5 km SW, total body length 10.2 mm; head length 1.5 mm, maximum head width across compound eyes 1.6 mm, pronotal length 1.5 mm, maximum pronotal width across midlength 1.8 mm, elytral length 7.2 mm, combined maximum elytral width across postmedium 4 mm. Female from Makale 5 km SW is 12.6 mm long.

Redescription. Male from Makale 5 km SW (Fig. 17A). Dorsum and ventral head uniformly black, elytra with vague dark blue lustre. Ventral pterothorax and abdomen dark brown. Mouthparts, antennae, and legs black. Head elliptical, slightly transverse, slightly glossy and ventrally. Labrum broadly emarginate at anterior margin. Epistoma deeply V-shapely emarginate at anterior margin. Frontoepistomal impression moderately deep, distinct, arched. Anterolateral area of frons moderately projected laterodorsad to hold insertion of antenna, glossy. Compound eye large, strongly emarginate at anterior, shallowly and broadly - at posterior margin in lateral view, not touching insertion of antenna, moderately prominent in lateral and dorsal aspects. Interfacetal setae not observed. Minimum interocular distance about 1.2–1.3× a length of dorsal eye portion. Tempus about as long as dorsal eye portion, slightly constricted posteriad, posterior temporal angle rounded, head base subtruncate. Head dorsum densely punctate with variably large and shaped punctures. Intervening spaces generally narrower than punctures, glossy, slightly elevated. Head dorsal setation whitish to pale yellowish, suberect, moderately dense and variably long. Few much longer suberect setae on tempus, epistoma and labrum. Antenna (Figs 16B, 17A) moderate, filiform with several antennomeres moniliform to strongly modified, extending towards mesocoxa when directed posteriad. Basal antennomere strongly thickened, elongate, about 6× as long as antennomere two. Antennomere two strongly shortened, about as long as wide. Antennomere three strongly asymmetrical, about as long as wide, strongly widened in distal half and with strong, narrow lobe at anterior margin, about twice as long as antennomere two. Antennomeres 4–6 moniliform, shortened and somewhat flattened, asymmetrical, 4–5 distinctly wider than antennomere six. Antennomere seven strongly asymmetrical, subtriangular, with a strongmedial lobe at anterior margin. Antennomere eight longer than wide, asymmetrical, impressed at anterior margin to accommodate a lobe of antennomere seven. Antennomere nine strongly asymmetrical, with a strong distal lobe at anterior margin, about as long as wide. Antennomere ten subtriangular, distally widened. Terminal antennomere asymmetrically cylindrical, apically acutely pointed, 1.2 mm long, about 3.6× as long as penultimate antennomere and as long as combined length of four preceding antennomeres. Terminal maxillary palpomere securiform. Cranial 'neck' glossy, not or sparsely punctured. Pronotum trapezoid with broadly rounded lateral margins, transverse, slightly glossy and weakly convex in dorsal aspect, truncate at both anterior and posterior margin. Maximum width across midlength, barely constricted anteriad and posteriad. Anterior and posterior margin not beaded or rimed. Antero- and posterolateral angles broadly rounded in dorsal view. Dorsal pronotal punctures variably large, circular to elliptical, coarse, dense, moderately deep, with opaque background. Punctures denser along midline of pronotum, here subconfluent. Intervening spaces glossy, narrower than punctures on median part of pronotal disc, as wide as to twice as wide as punctures on lateral parts of disc; on denser punctured area along pronotal midline setae

pointed transversely towards midline on either side of densely punctured area. Dorsal pronotal setae as those on dorsal head. Scutellar shield small, apically rounded, densely punctured and setose. Elytron elongate, distinctly widened postmedium, dorsally moderately convex, slightly glossy. Apical sutural angle acutely angulate in dorsal view. Elytral sculpture variably large, circular, coarse, dense, denser on postbasal fifth and along suture. Intervening spaces glossy, in part narrower than in part twice as wide as punctures. Elytral setae as those on dorsal forebody, of two types: subdecumbent and directed posteriad or erect. Epipleuron complete, very broad at most of its length, narrows rapidly in front of elytral apex, densely punctured, in par transversely rugulose, with dense erect setae. Metathoracic wings fully developed (functional). Legs stout, femora and tibiae slightly glossy, with brownish to yellowish, dense, long, suberect setae. Femora somewhat thickened. Tibiae subequally long to corresponding femora. Male metatibia inconspicuously thickened and dorsoventrally flattened distally. Two penultimate antennomeres widened pointing on arboreal lifestyle. Basal metatarsomere shorter than combined length of remaining metatarsomeres. Tergite VII and morphological sternite VII broadly rounded at posterior margin. Aedeagus as in Fig. 18.

Sexual dimorphism. Female (Figs 16C, 17B) generally larger and more robust, minimum interocular distance about 1.5× a length of dorsal eye portion, antennomeres 1–10 without modifications, 9–10 subtriangular (widened distally), terminal antennomere slightly arched and asymmetrical, 0.8 mm long, as long as combined length of three preceding antennomeres, metatibia inconspicuously thickened and dorsoventrally flattened distally.

Interspecific variability. Dorsal vestiture is yellowish to reddish brown in type specimens and pronotum has its maximum width across anterior third in the lecto- and two paralectotypes. In the recently obtained specimens dorsal vestiture is whitish and pronotum has maximum width across nearly its midlength. Male metatibia is without modifications in the lectotype. Aedeagus appears nearly identical in the lectotype and an additional studied male, but the apical part is somewhat less slender in the lectotype.

Ecology. Occurs in disturbed mid-montane rainforest at about 1500–1700 m. Observed on low vegetation and attracted to light.

Distribution. Southern Sulawesi.

Lagria sapphirina Merkl, 1988

New material studied. 1 specimen NME: W-PAPUA Raja Ampat Pr. Salawati Isl. bor., 8 km S Kaliam, 23.I.2004 01°01'26"S, 130°40'53"E leg. A.Weigel logg. Area; 1 specimen NME: INDONESIA W-PAPUA vic. Kaimana, road 17km NE,50 m, S3°31'41"E133°40'51" 31.I.2011 leg. A. Weigel (003); 4 specimens NME: INDONESIA W-PAPUA vic. Kaimana, road 10 km NE S 3°34'42", E 133°42'41", 40m 01.II.2011 leg.: A.Skale (002); 1 specimen DTC &4 NME: INDONESIA W PAPUA ca. 50 km SE Kaimana, Triton bay, vic. Kamaka village 10-50m // S3°49'50"/E134°11'27", 02.-05.II.2011 leg. A. Weigel 006; 1 specimen DTC & 2 NME: INDONESIA W-PAPUA vic. Kaimana, road 18 km NE S3°31'11"/E133°40'15", 50-80m 21.-25.II.2011 leg. A. Skale (014); 1 specimen NME: INDONESIA W-PAPUA vic. Kaimana, rd.18km NE S3°31'11"/E133°40'15" 50-80m, 21.-25.II.2011 leg. A. Weigel UWP #14;3specimens NME: W-PAPUAManokwari Pr.14km NE Ransiki, Warbiati (Oransari), 1°18.25'S 134°14.14'E, 02.III.2007, leg. A. Weigel cutting area; 4 specimens CMK: INDONESIA E,

10.09.2010. West Papua, S Bird's Neck, Kaimana 47 km, E, Triton bay, Kamaka (former Warika) will. [sic!] env. 03°46'24"S, 134°10'28"E,100 m; gardens& second. rainforest on limestone Leg. M.Kalniņs. First records from western New Guinea, Bird's Neck Isthmus and Raja Ampat Islands.

***Oreogria arfak* Telnov, 2022**

New material studied. 1 specimen NME: W-PAPUA Manokwari Pr. ca. 18 km NW Ransiki, Anggi Gida, Kampung Itkau 01°24.23'S,133°55.53'E 04.III.2007 leg.A.Weigel 1890m cutt. area / UWP.

Oreogria astrapia sp. nov. (Fig. 19)

urn:lsid:zoobank.org:act:7F280E59-AAE5-48BC-996E-A9C57287BECB

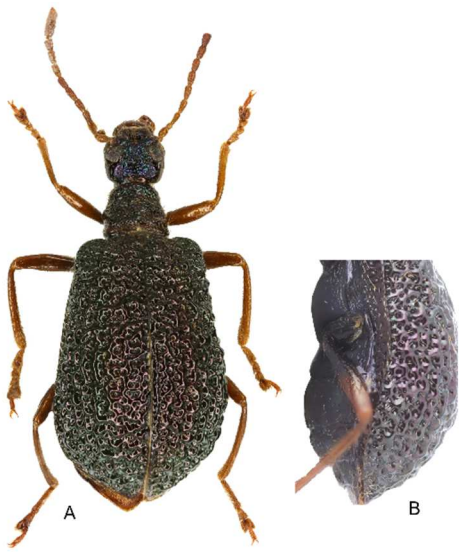

Fig. 19. *Oreogria astrapia* sp. nov. A – Holotype female, dorsal view; B – Holotype female, ventral pterothorax and abdomen, left lateral view [not to scale].

Type material designated. Holotype female NME: W-PAPUA Manokwari Prov.vic. Mokwam (Siyoubrig [sic!]), 1400-1800 m, 01°06.26'S, 133°54.41'E 24.-28.II.2007 leg. A. Skale [printed] [correct name of the collecting locality is Syoubri].

Paratypes 2 females. 1ASC: same label as holotype; 1 DTC: W-PAPUA Manokwari Pr. vic. Mokwam (Siyoubrig [sic!]), 1400-1800m, 01°06.26'S, 133°54.41'E,24.-28.II.2007 leg. A.Weigel UWS/UWP [printed] [correct name of the collecting locality is Syoubri].

Derivatio nominis. Named after *Astrapia* Vieillot, 1816, a genus of birds-of-paradise (Paradisaeidae Swainson, 1825). The Arfak Mountains in general and surroundings of Mokwam and Syoubri villages in particular are famous places for watching Arfak endemic Arfak astrapia (*Astrapia nigra* (Gmelin, JF, 1788)). Noun in apposition.

Measurements. Holotype female, total body length 7.6 mm; head length 1.3 mm, head width across compound eyes 1.2 mm, pronotal length 1.1 mm, maximum pronotal width across base 1.3 mm, elytral length 5.2 mm, combined maximum elytral width across apical third 3.5 mm. Paratype female 7.8 mm long.

Description. Holotype female (Fig. 19A). Dorsal and ventral head black with dark blue metallic lustre, labrum and mouthpartsbrown. Pronotum dorsally and laterally black with dark green metallic lustre. Elytra uniformly black with dark purple metallic lustre on raised areas (see below). Ventral pterothorax and abdomen black to black-brown, last visible abdominal segments somewhat paler brown. Antenna, maxillary palps and legs pale brown, femora darkened in basal parts. Head subrectangular, slightly longer than wide, glossy dorsally and ventrally, flattened in dorsal aspect. Labrum shallowly emarginate at anterior margin. Epistoma deeply and broadly, V-shapely emarginate at anterior margin. Frontoepistomal impression deep. Anterolateral area

of frons barely projected laterodorsad to hold insertion of antenna. Compound eye moderately large, strongly reniform, deeplyU-shapely emarginate at anterior, subtruncate at posterior margin in lateral view, not touching insertion of antenna, slightly prominent laterally and dorsally. Interfacetal setae not observed. Minimum interocular distance slightly wider a length of dorsal eye portion. Tempus barely constricted posteriad, as long as dorsal eye portion, posterior temporal angle rounded, head base broadly concave. Head dorsum very roughly punctate with variably large punctures, deep. Intervening spaces generally narrower than punctures and elevated, glossy. Head dorsal setae yellowish, sparse, long, suberect to appressed. Few longer, erect tactile setae present on tempora and epistoma. Antenna short, filiform, extending slightly beyond mesocoxa when directed posteriad, three terminal antennomeres slightly thickened. Basal antennomere cylindrical, slightly thickened, about 1.5× as long as antennomere two. Antennomere two shortened. Antennomere three the longest among antennomeres 1–10, about 2.2× as long as antennomere two, about slightly longerthan antennomere four. Antennomeres 7–10slightly thickened, punctate-tuberculate compared to nearly smooth fine basal antennomeres. Penultimate antennomere shortened, slightly widened distally. Terminal antennomere slightly elongated and thickened, apically acutely pointed, about 0.6 mm long, about 2.6–2.7× as long as penultimate antennomere and slightly shorter than combined length of two preceding antennomeres. Terminal maxillary palpomere small, securiform. Cranial neck not exposed from beneath anterior margin of pronotum, glossy. Pronotum narrowly trapezoid, slightly transverse, flattened and glossy dorsally, subtruncate at anterior andposterior margin, maximum width across base, slightly expanding medially on lateral margins and slightly constricted anteriad. Anterior and posterior margin not beaded or rimed. Antero- and posterolateral angles rounded in dorsal view. Pronotal disc with vague transverse impression at anterior margin and with paired vague transverse elliptical postmedian impression. Dorsal pronotal punctures similar as those on dorsal head but less regular. Intervening spaces generally narrower than to about as wide as punctures, elevated or flat, glossy. Median part of pronotal disc with a small flat elliptical subopaque area of dense small punctures, intersected with vague longitudinal carina. Hypomeron glossy, irregularly transversely corrugate or smooth. Dorsal pronotal setation as that on head. Anterior margin of pronotum with a row of yellowish, moderately long, anteriad-pointed setae. Scutellar shield small, subtriangular, slightly inflated in dorsal aspect, densely punctured and appressedly setose, apically rounded. Elytron strongly widened in postmedian half, dorsally strongly convex, glossy, appears widely glabrous. Humeral callosity small, slightly prominent. Posterior sutural angle rounded in dorsal view. Elytral deflected lateral margin poorly visible in dorsal view. Elytral sculpture of dense, deep, variably large punctures and strongly elevated, strongly glossy and rather narrow intervening spaces building strongly rugulose pattern. Epipleuron complete, very broad in basal half of its length, glossy, in part rather coarsely punctate. Metathoracic wings fully developed (functional). Metasternum strongly convex in ventral aspect (Fig. 19B). Abdomen strongly convex in ventral aspect, appears inflated (Fig. 19B). Legs moderately long, slender, femora and tibiae glossy, with yellowish setae. All femora slender, not clavate. All tibiae slightly shorter than corresponding femora, all along with rather dense, long, erect setae, meso- and metatibia slightly arched. Basal metatarsomere shorter than combined length of remaining metatarsomeres. Female tergite VII broadly rounded at posterior margin. Female

morphological sternite VII obtusely angulate medially at posterior margin.

Sexual dimorphism. Male is unknown.

Interspecific variability. Head with green metallic lustre in the paratype.

Differential diagnosis. The new species is unique among all congeners due to the uniformly coloured elytra (elytra more or less distinctly bicoloured with variably large yellow areas in other congeners) and the long tempora. Tempus is about as long as dorsal eye length in *O. gentilis* Merkl, 1988 (Paniai Lakes, western part of the Central Cordillera of New Guinea), *O. larvata* Merkl, 1988 (eastern part of the Central Cordillera of New Guinea and Owen Stanley Range) and *O. lutea* Merkl, 1988 (Central Cordillera of New Guinea), however the elytra are largely yellow with the less coarse rugulose sculpture in all three species.

Ecology. Occurs in primary mid-montane rainforest at 1500–1800 m. Diurnal, observed on low vegetation.

Distribution. Arfak Mountains in Doberai Peninsula, New Guinea.

Note. Male remains unknown from this species so is the shape of meso- and metatibia and male terminal antennomere.

***Xenocerogria koteka* sp. nov.** (Figs 20–21)

urn:lsid:zoobank.org:act:EA7891E0-1214-4354-8B8C-4EA1D350E33E

Note. Placement of this species in *Xenocerogria* Merkl, 2007 is tentative since the new taxon displays significant differences from the typical *Xenocerogria* sensu Borchmann, 1936 from the Oriental Region, including the shape of body, the modifications of antennomeres, the dorsally exposed elytral deflected lateral margin.

Type material designated. Holotype male NME: W-PAPUA Manokwari Prov.vic. Mokwam (Siyoubrig [sic!]), 1400-1800m, 01°06.26'S, 133°54.41'E24.-28.II.2007 leg.A. Skale [printed].

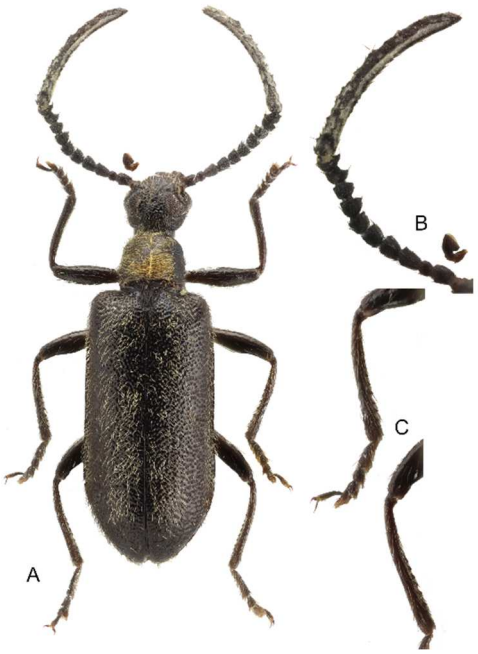

Fig. 20. *Xenocerogria koteka* sp. nov., holotype male. A – Habitus, dorsal view; B – Left antenna and three left terminal maxillary palpomeres, dorsal view; C – Meso- and metatibia, dorsal view [not to scale].

Derivatio nominis. Named after koteka, a penis sheath traditionally worn by males of some native tribes of New Guinea, to point on a peculiarly elongate male terminal antennomere of the new species. Noun in apposition.

Measurements. Holotype male (Fig. 20A). Total body length 5.3 mm; head length 0.9 mm, head width across compound eyes 0.9mm, pronotal length 0.7 mm, pronotal width across midlength 0.8 mm, across median portion 1.15 mm, across base 1.15

mm, elytral length 3.7 mm, combined maximum elytral width across midlength 1.8 mm.

Description. Holotype male, body elongate, slender, flattened in dorsal aspect. Dorsum and venter uniformly black, abdominal sternites brown. Head elliptical, slightly glossy dorsally and ventrally. Labrum broadly and shallowly emarginate at anterior margin. Epistoma broadly emarginate at anterior margin. Frontoepistomal impression moderately deep, distinct. Anterolateral area of frons moderately projected laterodorsad to hold insertion of antenna. Compound eye large, strongly reniform, deeply notched at anterior margin opposite insertion of antenna (densely punctured and long setose emargination extending towards posterior fourth of eye length), very broadly and shallowly emarginate at posterior margin, strongly protruding beyond lateral and dorsal outline of head. Minimum interocular distance about 0.7–0.8× a length of dorsal eye portion. Tempus about half eye length, slightly constricted posteriad, posterior temporal angle rounded, head base subtruncate. Head dorsal punctures dense and coarse, deep. Intervening spaces narrower than punctures, slightly elevated, glossy. Head dorsal setae yellowish, long to moderately long, rather sparse, suberect. Antenna (Fig. 20B) submoniliform, long, extending slightly beyond metacoxal cavity when directed posteriad. Basal antennomere short and thickened, about 1.7× as long as antennomere two. Antennomere two short. Antennomere three about twiceas long as preceding antennomere and about 1.3× as long as antennomere four. Antennomeres 4–10widened distally, 5–10 shortened, transverse. Antennomeres 7–10 with several short projections at periphery of distal margin. Terminal antennomere (Fig. 20B.) stronglyelongate andarched, 1.7 mm long, about 20× as long as penultimate antennomere and about as long as combined length of all preceding antennomeres, most of ventral margin except at base with distinct longitudinal furrow, remaining surface with numerous irregular tubercles. Terminal maxillary palpomere small, securiform. Pronotum slightly glossy dorsally and laterally, flattened in dorsal aspect, subrectangular, widest across midlength. Anterior and posterior margin subtruncate, without anterior and basal rim. Antero- and posterolateral angle rounded. Moderately deep paired transverse impression in anterolateral part of pronotal disc. Dorsal pronotal punctures distinctly smaller and denser than those on dorsal head, on lateral margins subconfluent. Intervening spaces narrower than to as wide as punctures, elevated, subrugulose when confluent. Pronotal setae yellowish, long and dense, subdecumbent, effectively concealing dorsal sculpture of pronotum. Scutellar shield triangular, pointed at posterior margin, opaque while densely punctured and setose. Elytron elongate, slender, nearly parallel-sided, flattened dorsally. Humerus rounded, humeral callosity barely elevated. Postbasal transverse impression not indicated. Posterior sutural angle rounded in dorsal view. Elytral deflected lateral margin visible in dorsal view except at humerus. Elytral punctures dense, rather deep, subconfluent. Intervening spaces narrower than to as wide as punctures, glossy, slightly elevated and subconfluent. Elytral setae paleyellowish, generally inconspicuous, moderately long and dense, subdecumbent, directed obliquely laterally on median part of elytra along suture. Epipleuron complete, conspicuously broad, sparsely punctate, widest in basal fourth. Metathoracic wings fully developed (functional). Procoxa contiguous. Legs moderately long and slender, slightly glossy, with long, rather dense yellowish setae. Femora slender, slightly clavate. Protibia shorter than corresponding femur, without modifications. Meso- and metatibia subequal in length to corresponding femur, inner margin distinctly denticulate (Fig. 20C). Protarsomeres somewhat

widened likely pointing on arboreal lifestyle. Male basal metatarsomere shorter than combined length of remaining metatarsomeres. Male tergite VII and morphological sternite VII broadly rounded at posterior margin. Aedeagus as in Fig. 21.

Fig. 21. *Xenocerogria kotekas*p. nov., holotype male, aedeagus in dorsal (A), ventral (B) and lateral (C) view.

Sexual dimorphism. Female is unknown.

Differential diagnosis. Very peculiar species among all known Lagriinadue to the combination of the peculiarly long, furrowed male terminal antennomere, the elongate body, the wide epipleura, the elytral lateral deflected margin visible from above at most of its length, andthe broadly and deeply emarginate compound eye. See note above on the temporary position of this species in *Xenocerogria*.

Ecology. Occurs at 1400–1800 m in primary mid-montane rainforest.

Distribution. Arfak Mountains, Doberai Peninsula of New Guinea. The first record of the genus *Xenocerogria* from the Papuan Region.

DISCUSSION

The concept of several lagriine genera, as it was originally introduced by earlier authors, appears suboptimal since a number of morphological features used for delimiting genera appear of low evolutionary value (e.g., shape of antennomeres or tibiae, visibility of deflected lateral margin of elytra in dorsal view etc.). Below I briefly discuss some conflicts using selected new species described herein as an example.

The lagriine of the Papuan Region (see definition in Gressitt (1982), Beehler *et al.* (1986), Riedel (2002), and Telnov (2011)) gained specificattention of specialists only in the last decades of 20th century when rich material from this ‘entomological white-spot’ first became available. This resulted in numerous new descriptions of species and the following new Papuan genera of subtribe Lagriina Latreille, 1825 were erected: *Acutogria* Merkl, 1988, *Kaindilagria* Merkl, 1988, *Oreogria* Merkl, 1988, *Tomogria* Merkl, 1988 (Merkl 1988b, c). The following main diagnostic features used in the original descriptions for defining these taxa (Table 1). However, some of these features appear randomly within other Lagriina genera (see Table).

Lateral margin of elytron is more or less distinctly deflected in several subgroups of Lagriinae (e.g., Borchmann 1936). However, at least for some Lagriina subgroups, this feature appears variably among specimens of the same species and appears of dubious systematic value (this feature used by Borchmann (1936) in his key to Lagriinae genera of the world).

Table 1. Diagnostic features of four Papuan genera of subtribe Lagriina Latreille, 1825 as defined in the original descriptions.

Genus	**Source**	**Feature as in the original description** (my additions in square brackets)	**Notes**
Acutogria Merkl, 1988	Merkl (1988b)	i. bill-shaped, acute last antennal segment; ii. fore tibiae curved and twisted in apical 1/3, inner margin with a large, broad, tooth-like widening just before the middle.	i. terminal antennomere elongate, acutely pointed in some *Bothrichara*, *Cerogria*; ii. slightly denticulate protibia also in *Bothynogria annamita* sp. nov.
Kaindilagria Merkl, 1988	Merkl (1988b)	i. [abdominal] sternite VI strongly modified, forming 2 lobiform and 2 forceps-shaped processes; ii. strongly elongate body; iii. papillate surface of elytra.	iii. papillate elytral disc also in *Tomogria*, *Oreogria astrapia* sp. nov.
Oreogria Merkl, 1988	Merkl (1988c)	i. [antenna without] lobiform or dentiform modifications; ii. extremely reduced to lacking elytral vestiture; iii. elytra ... always distinctly bicoloured; iv. middle and hind tibiae slightly widened towardapex, or narrowed at middle, sometimes toothlike, blunt to acute widening is present preapically, … never serrate or denticulate along the inner … margin.	i. unmodified intermediate antennomeres also in *Acutogria*, *Bothrichara*, *Kaindilagria*, *Tomogria*; iii. elytra uniformly dark in *O. astrapia* sp. nov., nearly so in *O. irianica* Merkl, 1988 and *O. nodosa* Merkl, 1988; iv. mesotibia with similar modifications in some *Cerogria*.
Tomogria Merkl, 1988	Merkl (1988b)	i. interocular distance much narrower than eye diameter; ii. antennae without modified or transversal segments; iii. pearl-like tubercles of the elytra.	ii. unmodified intermediate antennomeres also in *Acutogria*, *Bothrichara*, *Kaindilagria*, *Oreogria*; iii. papillate elytral disc also in *Kaindilagria*, *Oreogria astrapia* sp. nov.

Body colouration, interocular distance, presence or absence of dorsal impressions on pronotal disc, elytral sculpture and (to some extent) modifications of tibiae appear of dubious phylogenetic value and to be avoided when describing main diagnostic features for genus-rank taxa.

ACKNOWLEDGEMENTS

I am indebted to Matthias Hartmann (NME), Mārtiņš Kalniņš (MKC), André Skale (ASC) and Andreas Weigel (Wernburg, Germany) for providing the highly interesting material described and discussed in the present publication. Bernd Jaeger (MFNB) is thanked for the loan of the type series of *Cerogria cribratula*. Anonymous reviewers are thanked for improving the overall quality of the manuscript.

REFERENCES

Akita K., Masumoto K. 2016. The Tenebrionoid Beetles of Japan. Mushi-Sha Iconographic Series of Insects 9.pp. 302.

Beehler B.M., Pratt T.K., Zimmerman D.A. 1986. Birds of New Guinea. Handbook No. 9 of the Wau Ecology Institute. Princeton University Press, New Jersey. pp. xiii + 293.

Borchmann F. 1916. Die Lagriinae (Unterfamilie der Lagriidae). Archiv für Naturgeschichte (Abteilung A). 81 [1915], 6: 46–186.

Borchmann F. 1936. Coleoptera Heteromera Fam. Lagriidae. *In*: Wytsman P. (ed.): Genera Insectorum Fasc. 204. Louis Desmet-Verteneuil, Brussels, Belgium.pp. 561, pls. 9.

Gressitt J.L. 1982. General introduction. *In*: Gressitt J.L. (ed.): Monographiae biologicae 42, Biogeography and ecology of New Guinea. Dr. W. Junk / Springer Publishers, the Hague. pp. 3–13.

Masumoto K. 1988. A study of the Taiwanese Lagriidae. Entomological Review of Japan. 43, No. 1: 33–52, pls. 3–6.

Matthews E.G., Lawrence J.F. 2019. 36. Tenebrionidae Latreille, 1802: 582–661. In: Ślipiński A., Lawrence J.F. (eds.): Australian Beetles. Archostemata, Myxophaga, Adephaga, Polyphaga (part). Volume 2. CSIRO Publishing, Clayton South. pp. viii + 784.

Merkl O. 1986. A review of the Australian species of the subtribe Statirina (Coleoptera, Tenebrionidae: Lagriini). Annales Historico-naturales Musei Nationalis Hungarici. 78: 187–199.

Merkl O. 1987. A review of the Australian species of the subtribe Lagriina (Coleoptera, Tenebrionidae: Lagriini). Annales Historico-naturales Musei Nationalis Hungarici. 79: 121–166.

Merkl O. 1988a. Novelties of *Borchmannia*, *Falsonemostira* and *Rouyerus* from the Cameron Highlands, Malaysia (Coleoptera, Tenebrionidae: Lagriini). Entomological Review of Japan.43, No. 1: 81–88.

Merkl O. 1988b. The scientific results of Hungarian Soil Zoological Expeditions in New Guinea. Coleoptera, Tenebrionidae: Lagriini. Folia entomologica hungarica.49: 123–151.

Merkl O. 1988c. *Oreogria* gen. n. from New Guinea (Coleoptera, Tenebrionidae: Lagriini). Acta zoologicahungarica.34, No. 2 & 3: 247–271.

Merkl O. 1990. Lagriine beetles collected by the post-war Archbold expeditions to New Guinea (Coleoptera, Tenebrionidae: Lagriini). Acta Zoologica Hungarica. 36, No. 1 & 2: 47–57.

Merkl O. 1999. A new species of *Exostira* Borchmann from Borneo, with comments on the genus (Coleoptera, Tenebrionidae: Lagriini). Acta Zoologica Academiae Scientiarum Hungaricae.45, No. 3: 199–205.

Merkl O. 2004. On taxonomy, nomenclature, and distribution of some Palaearctic Lagriini, with description of a new species from Taiwan (Coleoptera: Tenebrionidae). Acta Zoologica Academiae Scientiarum Hungaricae. 50, No. 4: 283–305.

Merkl O. 2007. Notes on Asian Lagriini, with description of *Cerogria gozmanyi* sp. n. (Coleoptera: Tenebrionidae). Acta Zoologica Academiae Scientiarum Hungaricae.53, Supplementum 1: 255–272.

Merkl O. 2011. *Arthromacra* Kirby, 1837 in the Himalayas (Coleoptera, Tenebrionidae, Lagriini). Masumushi, Special Publication of the Japanese Society of Scarabaeoidology. 1: 301312.

Merkl O. 2019. Lagriini from Bhutan (Coleoptera: Tenebrionidae: Lagriinae). Annales zoologici. 69: 65–81.

Riedel A. 2002. Taxonomy, phylogeny, and zoogeography of the weevil genus *Euops* (Insecta: Coleoptera: Curculionoidea) in the Papuan region. Dissertation zur Erlangung des Doktorgrades der Fakultät für Biologie der Ludwig-Maximilians-Universität München, Munich. pp. 216.

Telnov D. 2011. Taxonomische Revision der Gattung *Macratria* Newman, 1838 (Coleoptera: Anthicidae: Macratriinae) aus Wallacea, Neuguinea und den Salomonen. In: Telnov D. (ed.): Biodiversity, Biogeography and Nature Conservation in Wallacea and New Guinea.Volume I. The Entomological Society of Latvia, Rīga. pp. 97–285, pls 17–37.

Telnov D., Bukejs A., Merkl O. 2019. Description of a new fossil *Statira* Lepeletier et Audinet–Serville, 1828 (Coleoptera: Tenebrionidae: Lagriinae) from Baltic amber of the Sambian Peninsula. Zootaxa. 4683, No. 4: 508–514. doi: 10.11646/zootaxa.4683.4.2

Telnov D. 2021. A new, remarkable *Chlorophila* Semenov, 1891 (Coleoptera: Tenebrionidae: Lagriinae) from China. Baltic Journal of Coleopterology. 21: 213–220.

Telnov D. 2022a. Review and new species of *Donaciolagria* Pic, 1914 (Coleoptera: Tenebrionidae: Lagriinae), with a key, and an annotated checklist. Tijdschrift voor Entomologie. 165: 1–31. doi: 10.1163/22119434-bja10019

Telnov D. 2022b. An overview and new species of *Arthromacra* W. Kirby, 1837 (Coleoptera: Tenebrionidae: Lagriinae) from continental China, the Korean and Indochinese peninsula. Annales Zoologici. 72, No. 1: 153–165. doi: 10.3161/00034541ANZ2022.72.1.014

Telnov D. 2022c. New species, taxonomy and faunistics of East Asian and Papuan Lagriinae Latreille, 1825 (Coleoptera: Tenebrionidae). Annales Zoologici. 72, No. 2: 313–346. doi: 10.3161/00034541ANZ2022.72.2.014

Telnov D. 2022d. New genus rank synonym of *Donaciolagria* Pic, 1914 (Coleoptera: Tenebrionidae: Lagriinae) with an updated key to species. Annales Zoologici. 72, No. 4: 827–832. doi: 10.3161/00034541ANZ2022.72.4.005

Telnov D. 2023. New taxa and records of Statirina Blanchard, 1845 (Coleoptera: Tenebrionidae: Lagriinae), with a new genus-rank synonym. Annales Zoologici. 73, No. 1: 85–110. doi: 10.3161/00034541ANZ2023.73.1.009

Wu T., Zhou Y., Chen B. 2021. A review of the genus *Bothynogria* Borchmann, 1915 with descriptions of one new species and two new record species from China (Coleoptera: Tenebrionidae: Lagriinae: Lagriini: Lagriina). Journal of Asia-Pacific Entomology. 24, No. 3: 716–723. doi: 10.1016/j.aspen.2021.06.005

Received: 10.10.2023.
Accepted: 30.11.2023.